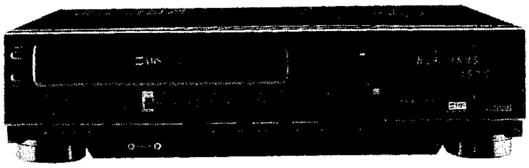
Hi-Fi Stereo S-VHS video cassette recorder VR6948/00/02

Service
Service
Service

For the technical data of the tape deck mechanism reference is made to the DMS4/2 Service Manual.

The IR remote control unit for this set is 22AV5662/20.



44 525 A11

Service Manual

S VHS
PAL

VR6948/00	is a stereo video cassette recorder with TV reception section and electronic time circuit including the VPS-system, suited for recording and playback of TV signals which meet the CCIR-PAL B/G standard. The signals are recorded on tape according to the S-VHS-HQ+ standard. The video cassette recorder has been provided with a Hi-Fi stereo audio system for which use has been made of frequency modulation. These signals are recorded on tape using the depth multiplex (DMPX) system. Moreover this recorder is suited with the S-VHS system which allows to record luminance-signals up to 5 MHz on the tape. Furthermore the recorder is provided with 4 video-heads in order to reduce picture-search disturbances and to give a perfect still picture.
VR6948/02	this recorder is suited for recording and playback of TV signals which meet the CCIR-PAL B/G SECAM-OST standard. The rest of the technical details are identical to the above mentioned recorder VR6948/00.

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1 Front view of the recorder and description of the controls.
  Technical data of the set

2 Disassembly of the set
  Electrical adjustment instructions

3 This chapter has been replaced by the separately available documentation of the deck (DMS 4/2)

4 Wiring diagram
  Block diagrams

5 C.B.A. parts lists
  C.B.A. layouts
  Circuit diagrams
  Survey of testpoints

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

DocumentationTechnique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçio

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Service Consumer Electronics

CS 20 479

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Replaced by the separate manual for the DMS 4/2

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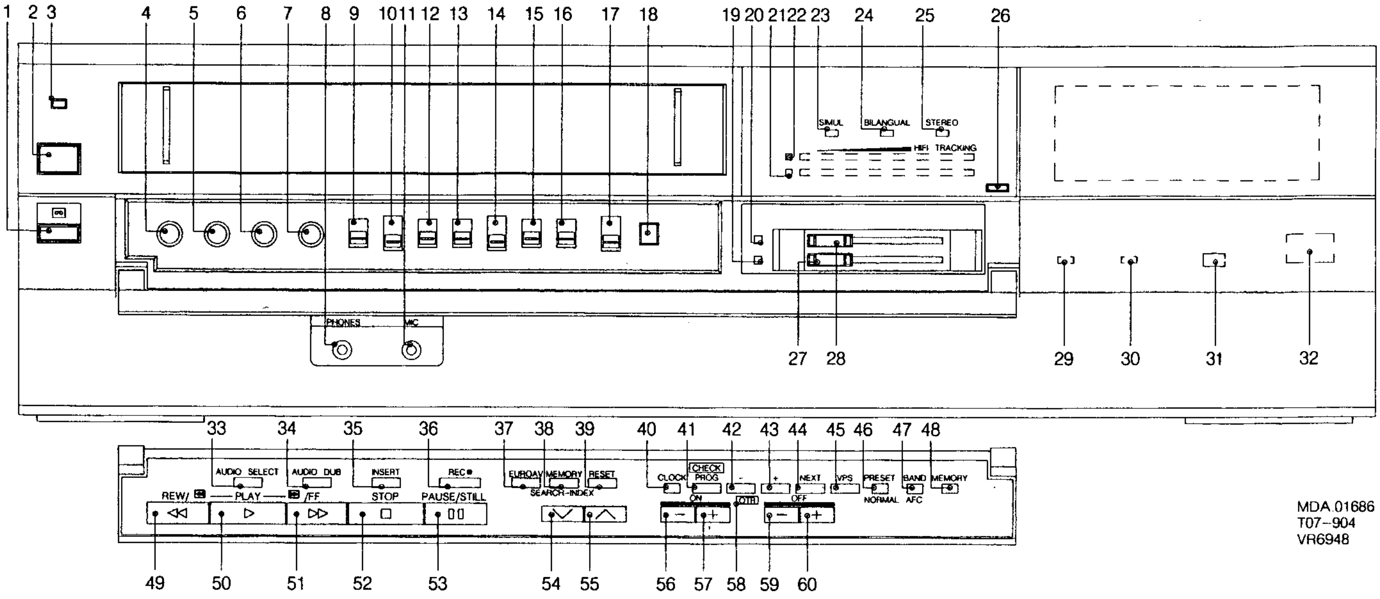

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
SIMUL
BILANGUAL
STEREO
HIFI TRACKING
PHONES
MIC
27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
AUDIO SELECT
AUDIO DUB
INSERT
REC●
EURO AV
MEMORY
RESET
SEARCH-INDEX
CLOCK
CHECK
PROG
ON
OTR
OFF
NEXT
VPS
PRESET
NORMAL
BAND
AFC
MEMORY
REW/
PLAY
/FF
STOP
PAUSE/STILL
49 50 51 52 53 54 55 56 57 58 59 60

MDA 01686
T07–904
VR6948

1 Eject button and indicator
2 Power on / standby button
3 Power on indicator
4 Headphone output level control
5 Tracking control
6 Slow tracking control
7 Picture sharpness control
8 Headphone socket
9 S–VHS Selector (auto/off)
10 Image selector (edit/normal/detail)
11 Microphone input socket
12 Tapespeed selector (LP/SP)
13 MPX FM–filter (on/off)
14 Audio levelmeter (tracking/audio/off)
15 Audio levelcontrol (manual/auto)
16 Simulcast recording (on/normal)
17 Input signal selector (line–audio/tuner/s–video)
18 Timer record button
19 Audio record level right
20 Audio record level left
21 Audio level indicator right
22 Audio level indicator left/tracking
23 Simulcast indicator
24 Biligual indicator
25 Stereo indicator
26 Control panel open button
27 Audio level control right
28 Audio level control left
29 Audio dubbing indicator
30 Insert editing indicator
31 S–VHS indicator
32 Remote control receiver
33 Audio select (stereo/L/R/mono)
34 Audio dubbing button
35 Insert editing button
36 Record button
37 Select button (Euro/Cinch)
38 Memory / search button
39 Reset / Index search button
40 Set clock button
41 Timer button (set/check)
42 Timer button (Down/–)
43 Timer button (Up/+)
44 Timer button (Next)
45 Timer button (VPS)
46 Tuning button (preset/normal)
48 Tuning button (band/AFC)
49 Rewind/review button
50 Play button
51 Wind/Cue button
52 Stop button
53 Pause/still/frame advance button
54 Channel select button (Down)
55 Channel select button (Up)
56 OTR timer ON button (Down)
57 OTR timer ON button (Up)
58 OTR indicator
59 OTR timer OFF button (Down)
60 OTR timer OFF button (Up)

TECHNICAL DATA

General

Mainsvoltage	: 220 V ± 10 %
Mains frequency	: 50/60 Hz
Power consumption	: 35 W
Dimensions	: 430 (W)x357 (D)x109.5 (H)
Weight	: ± 7.1 kg
Maximum playing time	: SP 4 Hours with E240
	: LP 8 Hours with E240
Winding/Rewinding time	: ⩽ 5.5 min (E180 tape)
Number of programms	: 1 - 99
Number of timer programms	: 8
Pre-programming period	: 1 Month, weekly or daily

Video

Signal-to-noise ratio	: SP ⩾ 48 dB
	: LP ⩾ 43 dB
Resolution normal	: ⩾ 3.2 MHz (⩾ 260 lines)
Resolution S-VHS	: ⩾ 5.0 MHz (⩾ 400 lines)
Drop-out compensation	: CCD, 5 lines

Audio

Frequency characteristic lineair	: SP 100 - 10000 Hz (-6 dB)
	: LP 100 - 8000 Hz (-8 dB)
Frequency characteristic Hi-Fi	: 20 - 20000 Hz (-2 dB)
Signal-to-noise ratio lineair	: ⩾ 38 dB, 1 kHz
Signal-to-noise ratio Hi-Fi	: ⩾ 86 dB

Tuner

Band I	: Channel E2 ... E4
Band III	: Channel S4 ... E12
Band H	: Channel S11 ... S41
	: (PAL / SECAM B)
Band UHF	: Channel 21 ... 69
	: (PAL / SECAM G)

Modulator

Adjustable modulation frequency	: Channel 32 ... 40
Output level	: 73 ± 3 dBμV (Ro = 75Ω)

Connections

Aerial in	: DIN 45325/IEC 169-2
Aerial out	: DIN 45325/IEC 169-2

Heads

Video heads	: 2 Double Azimuth heads (4 heads)
Audio heads	: 2 Rotating heads (Hi-Fi)
	: 1 Stationairy head

SECTION 2
ADJUSTMENT PROCEDURES

2-1. MECHANICAL ADJUSTMENT PROCEDURES

This Mechanical Chassis of this model VR6948/02, 00 is the same as the G Mechanical Chassis.

2-2. DISASSEMBLY METHOD

2-2-1. DISASSEMBLY FLOWCHART

The above flowchart describes the order of stops for removing the cabinet parts and certain printed circuit boards in order to gain access to the items needing servicing. To reassemble the unit, follow the steps in reverse order.

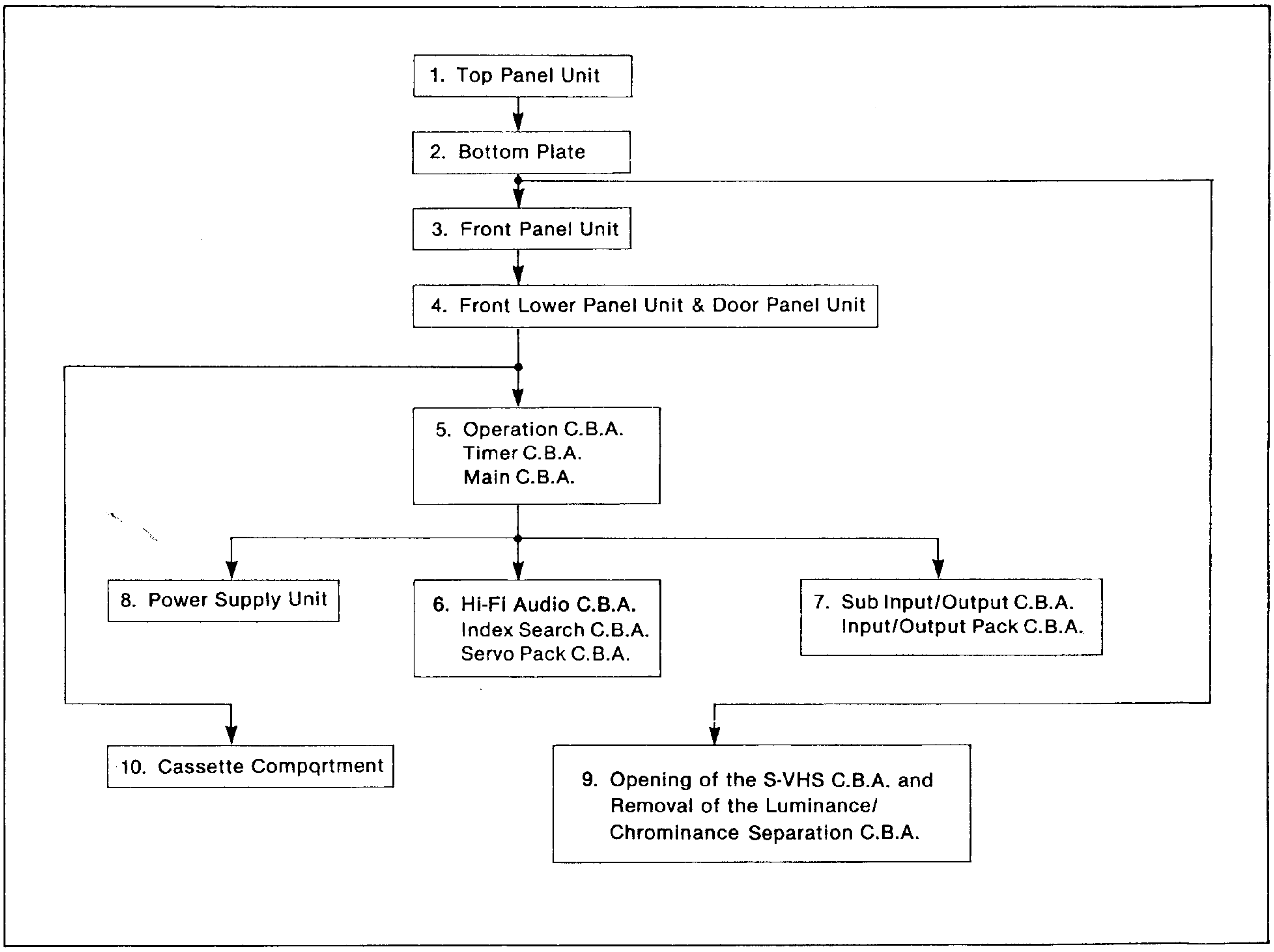

1. Top Panel Unit
2. Bottom Plate
3. Front Panel Unit
4. Front Lower Panel Unit & Door Panel Unit
5. Operation C.B.A.
Timer C.B.A.
Main C.B.A.
8. Power Supply Unit
6. Hi-Fi Audio C.B.A.
Index Search C.B.A.
Servo Pack C.B.A.
7. Sub Input/Output C.B.A.
Input/Output Pack C.B.A.
10. Cassette Compqrtment
9. Opening of the S-VHS C.B.A. and
Removal of the Luminance/
Chrominance Separation C.B.A.

FIG.D1

2-2-2. DETAILED DISASSEMBLY METHOD

1. Removal of the Top Panel Unit

   Unscrew 4 screws(A) on the Top Panel Unit and carefully lift the rear of case to remove.

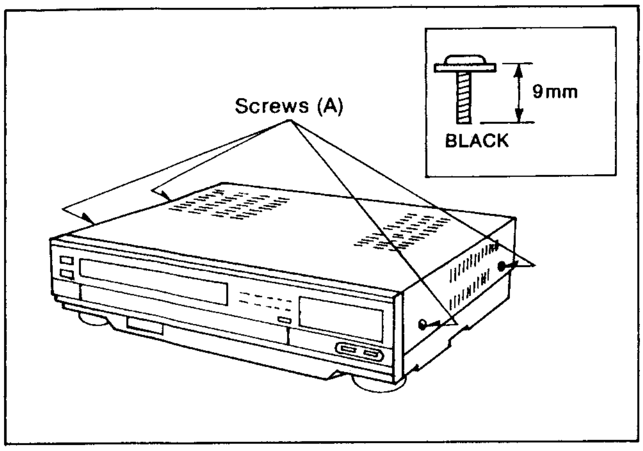

Screws (A)
9mm
BLACK

FIG.D2

2. Removal of the Bottom Plate

   Unscrew 8 screws(B) and lift off the Bottom Plate.

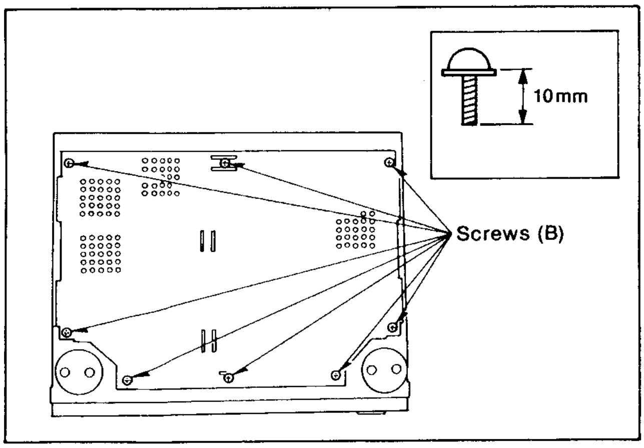

10mm
Screws (B)

FIG.D3

3. Removal of Front Panel Unit

   Open the Door Panel Unit and unscrew 3 screws(C) and then unlock 5 locking portions(D).

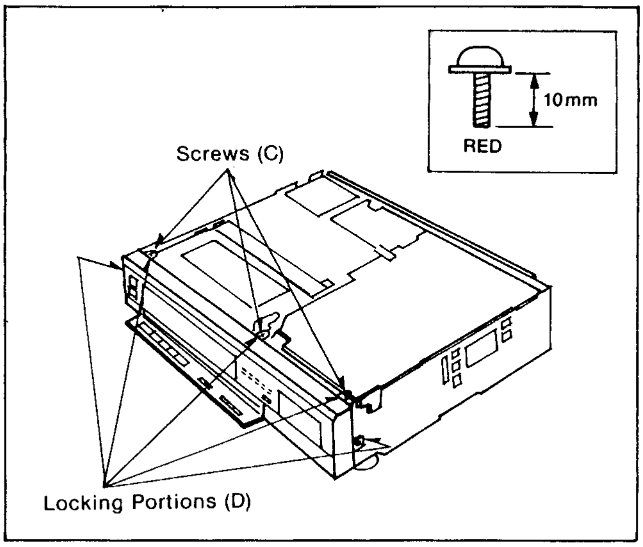

10mm
RED
Screws (C)
Locking Portions (D)

FIG.D4

4. Removal of Front Lower Panel and Door Panel Unit

   Unlock the connector lock of P7502 on the Timer C.B.A. and remove the flexible wire.
   Next, unscrew 2 screws (E) and carefully remove the Door Panel Unit.

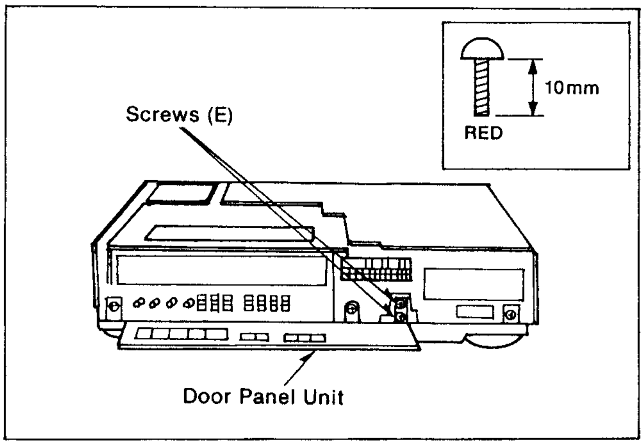

10mm
RED
Screws (E)
Door Panel Unit

FIG. D5

Unscrew 3 screws (F) and then unlock 3 locking portions (G).
Remove the Front Lower Panel Unit.

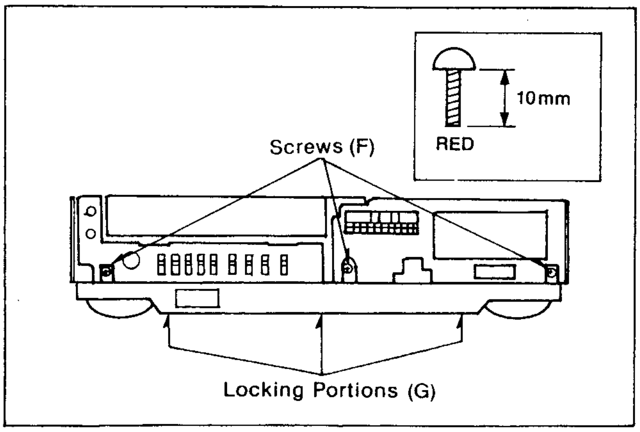

10mm
RED
Screws (F)
Locking Portions (G)

FIG. D6

5. Opening of the Operation C.B.A., Timer C.B.A., Jack C.B.A. and Main C.B.A.
   Unscrew 3 screws(H) and unlock 6 locking portions(I).
   Then unlock 2 wire clampers and carefully open the Operation C.B.A., Timer C.B.A. and Jack C.B.A.

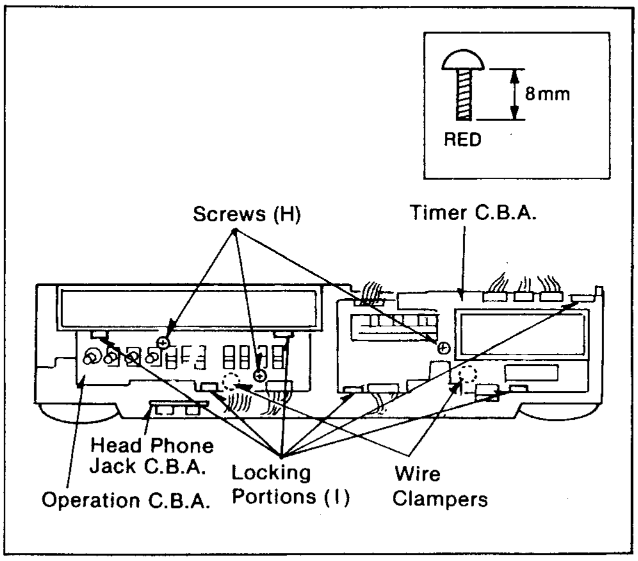

8mm
RED
Screws (H)
Timer C.B.A.
Head Phone Jack C.B.A.
Operation C.B.A.
Locking Portions (I)
Wire Clampers

FIG. D7

Unscrew 4 screws(J) on the rear panel.

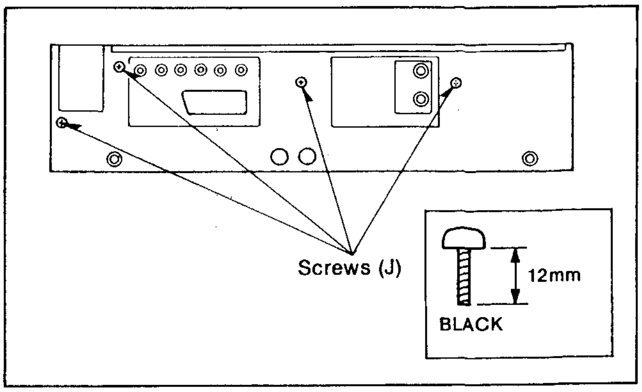

Screws (J)
12mm
BLACK

FIG. D8

Unscrew 7 screws(K) on the Main C.B.A.
And open the Main C.B.A.

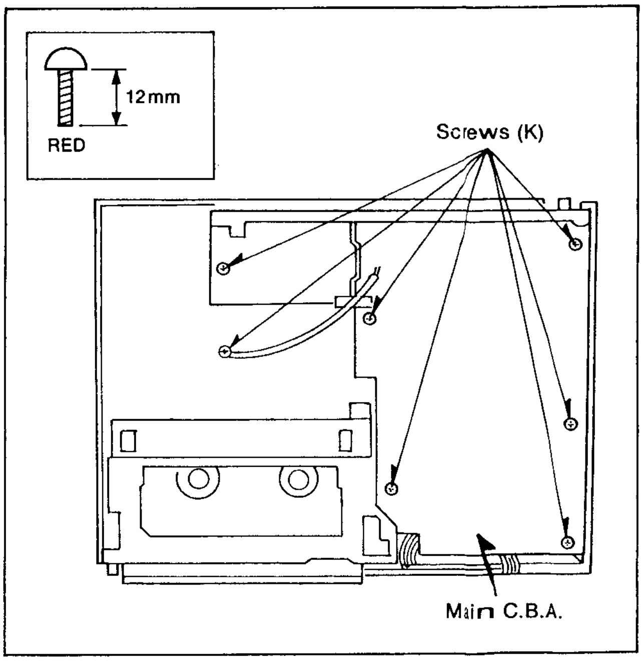

12mm
RED
Screws (K)
Main C.B.A.

FIG. D9

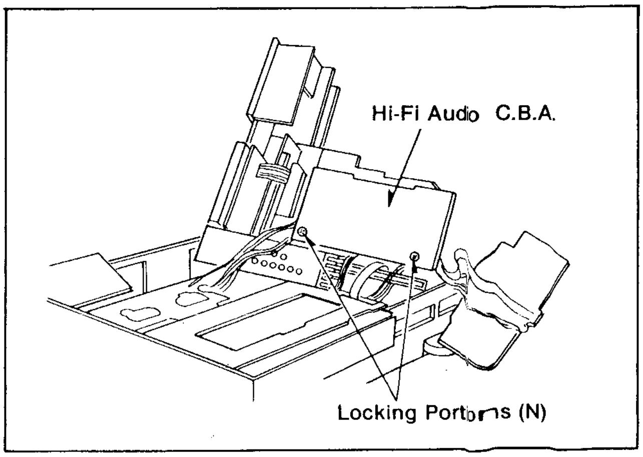

Hi-Fi Audio C.B.A.
Locking Portions (N)

FIG. D10

6. Opening of the Hi–Fi Audio C.B.A., Index Search and Servo Pack C.B.A.

Unlock 2 locking portions(N) and open up the Hi–Fi Audio C.B.A.
Next, unlock 2 locking portions(O) and open up the Index Search C.B.A.

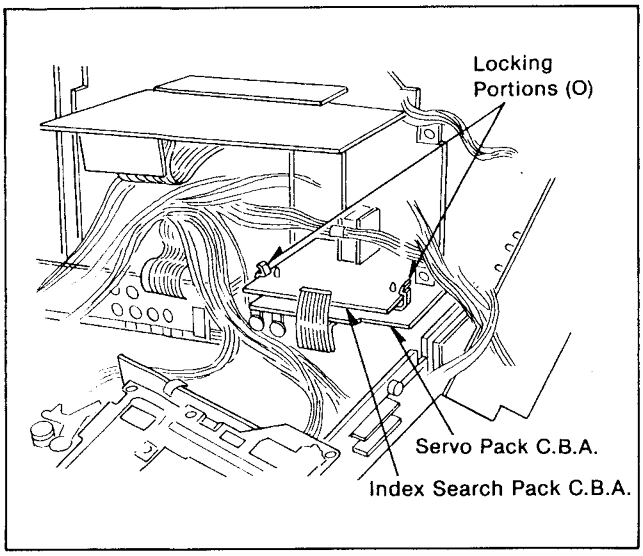

Locking
Portions (O)
Servo Pack C.B.A.
Index Search Pack C.B.A.

FIG. D11

7. Opening of the Sub Input / Output C.B.A. and Input/Output Pack C.B.A.

Unlock 2 locking portions(P) and open the Sub Input/Output Pack C.B.A.

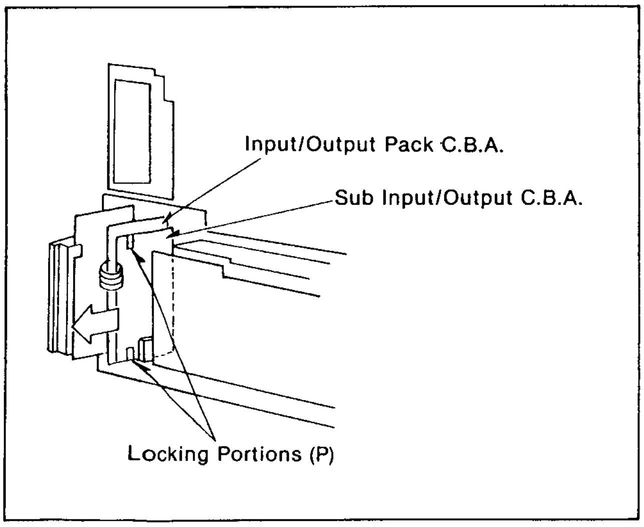

Input/Output Pack C.B.A.
Sub Input/Output C.B.A.
Locking Portions (P)

FIG. D12

8. Removal of Power Supply Unit

Remove 2 screws(Q) and take it out from the Main C.B.A.
Remove the shield case then checking can be performed.

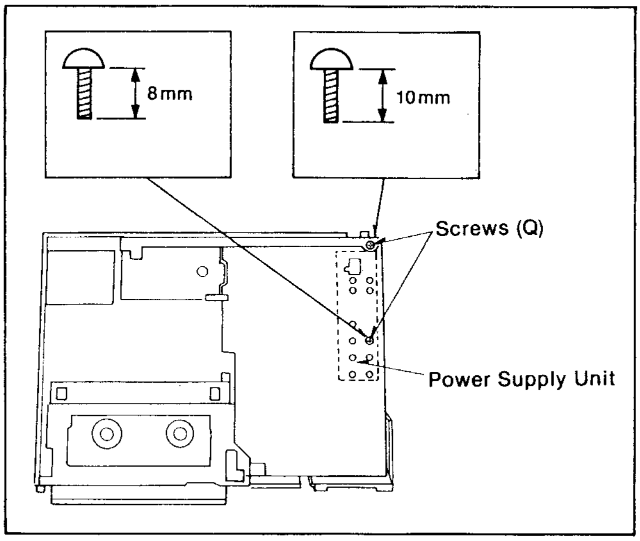

8mm
10mm
Screws (Q)
Power Supply Unit

FIG. D13

9. Opening of the S–VHS C.B.A. and removal of the Luminance/Chrominance separation C.B.A.

Unscrew 5 screws(R) and Open the S–VHS C.B.A.
Next, unscrew 3 screws(S) and remove of the luminance/chrominance separation C.B.A.

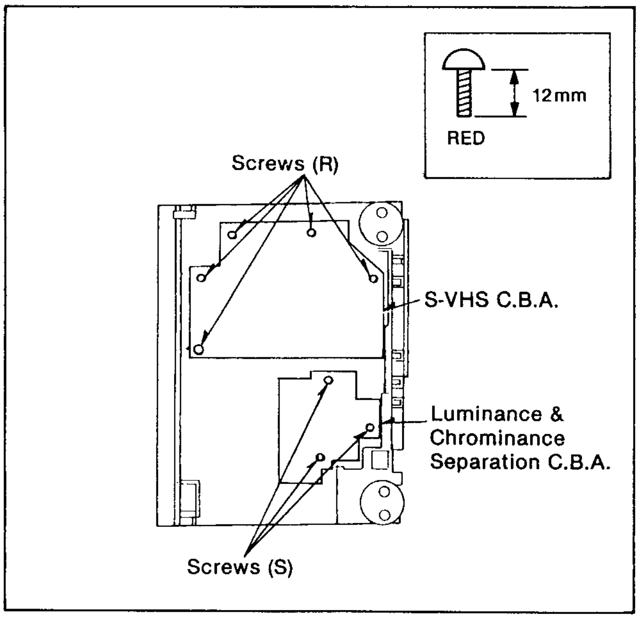

12mm
RED
Screws (R)
S-VHS C.B.A.
Luminance &
Chrominance
Separation C.B.A.
Screws (S)

FIG. D14

2-4. ELECTRICAL ADJUSTMENT PROCEDURES

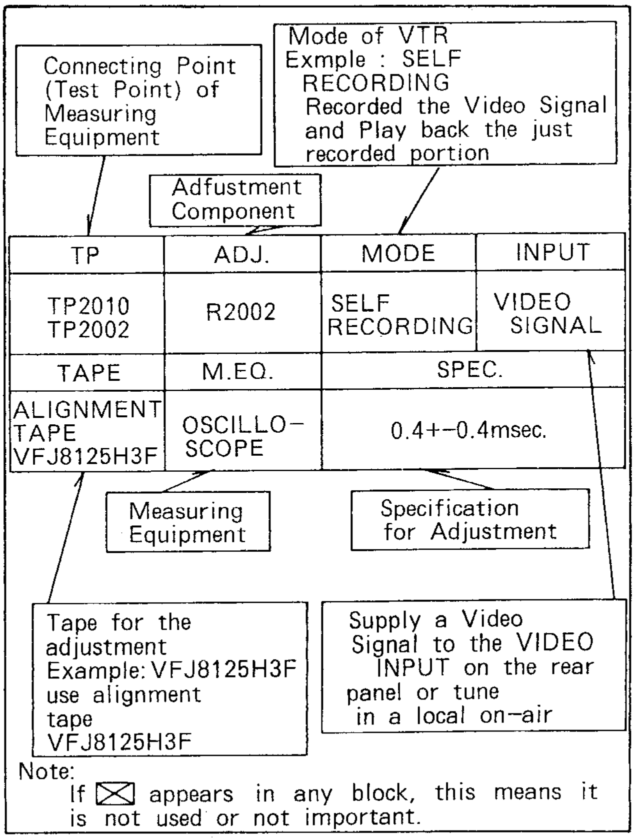
This section provides complete electrical adjustment procedures which may be required for electronic circuits of S–VHS Video Cassette Recorders VR6948/02, 00.

2–4–1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range: 0.001～50V
2. Dual–Trace Oscilloscope
   Voltage range: 0.005～50V/div.
   Frequency Range: DC–30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0～10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0～500KHz
5. Video Sweep Generator
   Frequency Range: 0～10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F)
9. Pattern Generator
10. VHS Blank Tape
11. S–VHS Blank Tape

2–4–2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Exmple : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adfustment Component
Measuring Equipment
Specification for Adjustment
Tape for the adjustment
Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on–air

TP	ADJ.	MODE	INPUT
TP2010 TP2002	R2002	SELF RECORDING	VIDEO SIGNAL
TAPE	M.EQ.	SPEC.	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO–SCOPE	0.4+–0.4msec.	

Note:
If ☒ appears in any block, this means it is not used or not important.

FIG. E1

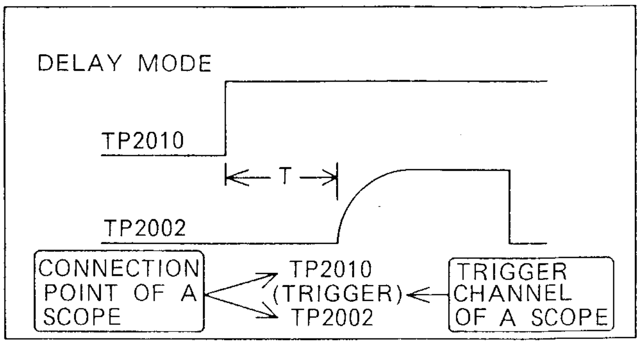

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

FIG. E2

Note:
Befor the electrical adjustment, set the VTR as following conditions except for especial instructions in each adjustment item.

1. Tracking Control VR...Centre FIX position
2. Picture sharpness VR...Centre FIX position
3. Slow Tracking Control VR...Centre FIX position
4. S–VHS Selector...AUTO position
5. Image Slector...NORMAL position
6. Tape Speed Selector...SP positon
7. Audio Rec Level Control Selector...AGC position
8. MPX Filter Switch...OFF position
9. Input Signal Selector...LINE position
10. Filter/Test Signal Switch...AUTO position
11. DBS Switch...OFF position

SERVO Section

2–4–3. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002	VR2001	PLAY	☒
TAPE	M.EQ.	SPEC.	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO–SCOPE	7.0+–0.5H	

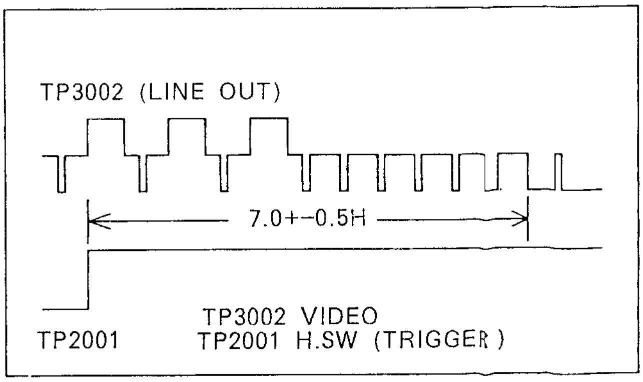

TP3002 (LINE OUT)
7.0+–0.5H
TP2001
TP3002 VIDEO
TP2001 H.SW (TRIGGER)

FIG. E3

2-4-4. TRACKING FIX ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP2002	VR2002	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
BLANK TAPE	OSCILLO-SCOPE	T=1.6+-0.4msec.	

1. Playback the just recorded portion.
2. Adjust VR2002 so that the period "T" becomes 1.6+-0.4msec as shown in FIG. E4.

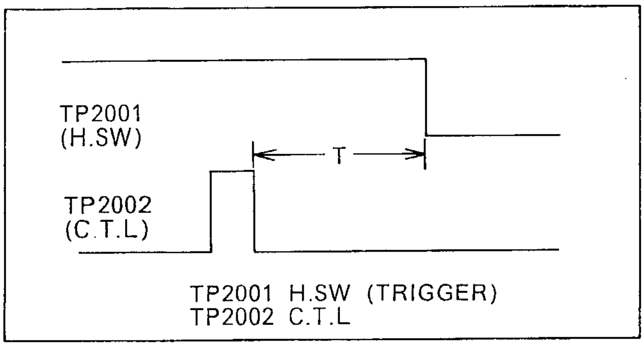


FIG. E4

2-4-5. SLOW FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	STILL	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
BLANK TAPE. (60min type)	FREQUENCY COUNTER	453+-15Hz	

1. Play back the just recorded portion and place the unit in STILL mode.
2. Connect the jumper wire between TP2025 and GND.
3. Connect the jumper wire between TP2026 and GND.
4. Connect the frequency counter to TP2015.
5. Adjust the VR2013 so that the reading of the Frequency Counter is 453+-15Hz.

2-4-6. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2020 TP2002	VR2011 (SP) VR2006 (LP)	SLOW	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
BLANK TAPE (60min type)	OSCILLO-SCOPE	T=20.0+-2.0msec. (SP) T=16.0+-2.0msec. (LP)	

1. Play back the just recorded portion in SLOW mode.
2. Adjust the VR2011 (SP) and VR2006 (LP) respectively as shown in FIG. E5.

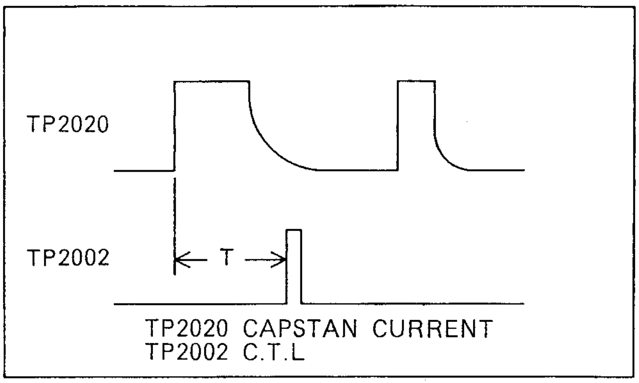


FIG. E5

2-4-7. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV MONITOR	VR2010 (SP) VR2009 (LP)	STILL	VIDEO SIGNAL (MONO SCOPE)
TAPE	M.EQ.	SPEC.	
BLANK TAPE	TV MONITOR	NO V-DANCING	

1. Play back the just recorded portion in STILL mode.
2. Adjust VR2010 (SP), and VR2009 (LP) respectively on the Servo pack so that the V-dancing does not appear on the TV Monitor as shown in FIG. E6.
3. Confirm that the V-dancing does not appear in cue and Review modes. If the V-dancing is appeared on the TV Monitor, this adjustment should be repeated again.

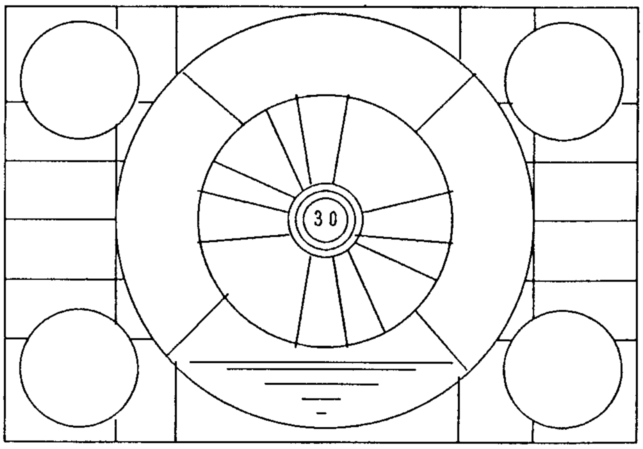


FIG. E6

LUMINANCE, CHROMINANCE & HEAD AMP Section

2–4–8. SUB–EMPHASIS LIMITER BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3401	VR3401	STOP	
TAPE	**M.EQ.**	**SPEC.**	
	D.V.M	3.48V+–0.05V (DC RANGE)	

1. Set the Recording SW to "LP" position.
2. Connect the D.V.M to TP3401.
3. Adjust VR3401 so the the reading of D.V.M is 3.43V~3.53V in the DC range.

2–4–9. PILOT BURST PHASE ADJUSTMENT

(WITH VECTORSCOPE)

TP	ADJ.	MODE	INPUT
TP8301	C8301	STOP	COLOUR BAR SIGNAL (S–VIDEO INPUT)
TAPE	**M.EQ.**	**SPEC.**	
	VECTOR–SCOPE	–90degrees+–5degree	

1. Set the Input Signal Selector to S–VIDEO position.
2. Supply the colour bar signal to the S–Video Input on the rear panel.
3. Connect the vectorscope to TP8301 and its external terminal for trigger to Line Output of VTR.
4. Adjust C8301 so that the pilot burst signal is placed in –90+–5degree against the U–Axis on Vectorscope.

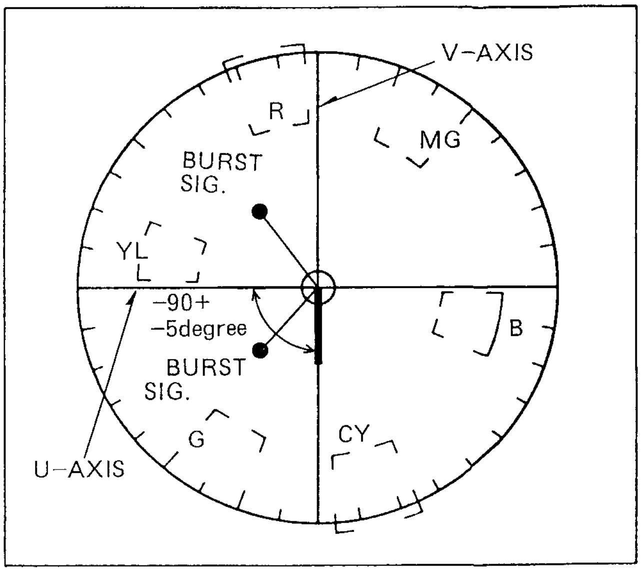

V–AXIS
R
MG
BURST SIG.
YL
–90+
–5degree
B
BURST SIG.
G
CY
U–AXIS

FIG. E7

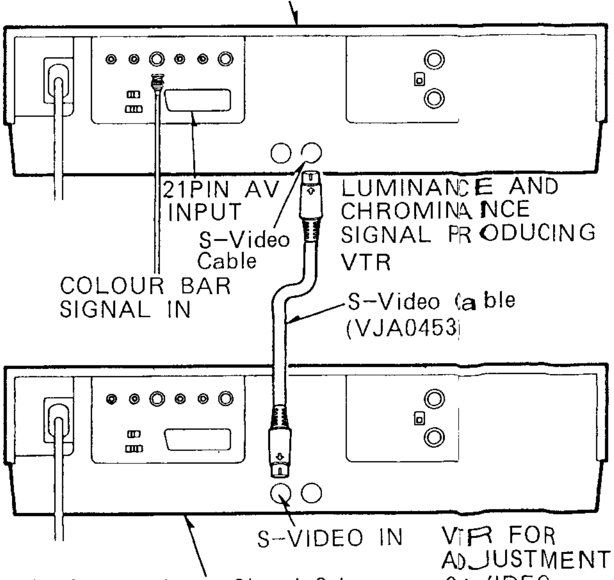
Note :
HOW TO OBTAIN THE LUMINANCE AND CHROMINANCE SEPARATION SIGNAL FOR S–VIDEO INPUT

(USING NEW S–VHS VTR **(VR6948)**)

Prepare a new S–VHS Video Tape recorder **(VR6948)** and use it to obtain the luminance and chrominance separation signals as shown in FIG. E8.

1. Set the Input signal selector to LINE position on prepared S–VHS VTR **(VR6948)**
2. Supply the Colour bar signal to Line Input or 21 PIN AV INPUT on prepared S–VHS VTR **(VR6948)** .
3. Connect the S–Video cable (VJA0453) between S–VHS VTRs.

1. Set the Input Signal Selector to LINE position.
2. Supply the Colour bar signal to Line Input or 21 PIN AV Input.


21PIN AV INPUT
S–Video Cable
COLOUR BAR SIGNAL IN
LUMINANCE AND CHROMINANCE SIGNAL PRODUCING VTR
S–Video Cable (VJA0453)
S–VIDEO IN
VTR FOR ADJUSTMENT

1. Set the input Signal Selector to S-VIDEO position.

FIG. E8

1. Connect the oscilloscpe to TP3002.
2. Play back the just recorded portion.
3. Confirm the level of output signal and if the output signal is out of specifitions,adjust VR3403 during recording so that the playback output signal (1.0+-0.05Vp-p) can be obtained by repeating the recording and playback.

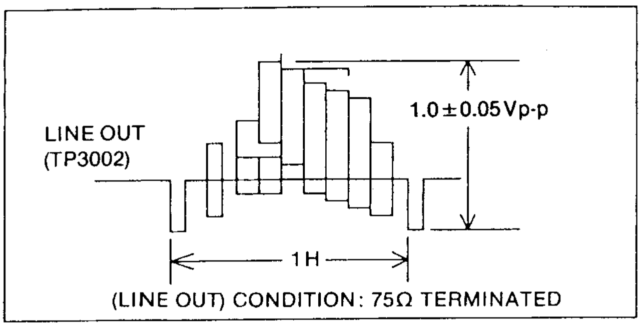


FIG. E11

Note:
This adjustment should be performed since the other adjustments of Luminance Chrominance & Head Amp have been always completed.

(ADJUSTMENT METHOD 2)

TP	ADJ.	MODE	INPUT
TP3002	VR3403	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	OSCILLO-SCOPE	1.0+-0.05Vp-p	

1. Record the colour bar signal.
2. Play back the just recorded portin by another prepared new S-VHS VTR **(VR6948)** and confirm the output level at TP3002.

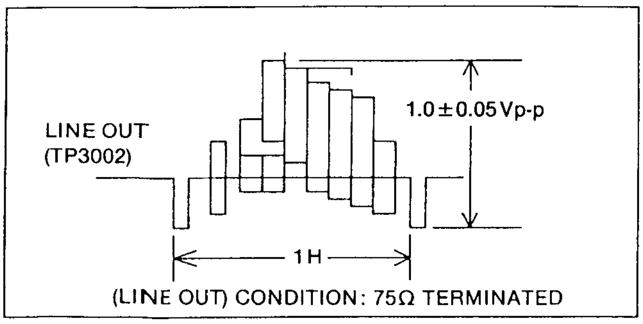


FIG. E12

3. If the output level (TP3002) is out of specification, adjust VR3403 during recording so that the output level (1.0+-0.05Vp-p) is obtained on another new S-VHS VTR **(VR6948)**.

2-4-12. CHROMINANCE & LUMINANCE RECORDING CURRENT ADJUSTMENT

* CHROMINANCE RECORDING CURRENT ADJ.

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR502	RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	OSCILLO-SCOPE	28+-3mVp-p	

1. Set the Tape Speed Selector to LP position.
2. Connect the oscilloscpe to TP503 (HOT) and TP504 (GND).
3. Before Chrominance recording current adjustment Luminance recording current must be closed to observe the chrominance signal. (VR501 is minimum position.)
4. Adjust VR502 for 28+-3mVp-p as shown below.

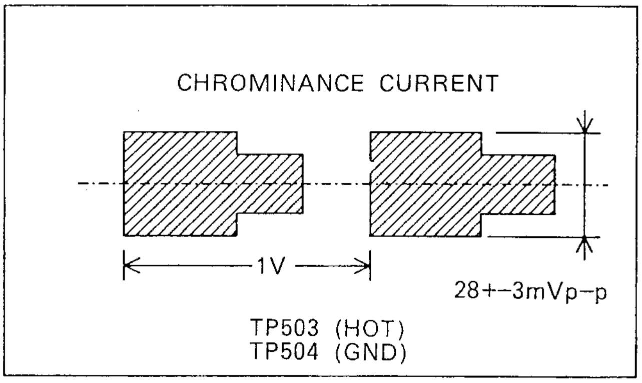


FIG. E13

* S-VHS LUMINANCE RECORDING CURRENT ADJ.

TP	ADJ.	MODE	INPUT
TP503(HOT) TP504(GND)	VR501	RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	OSCILLO-SCOPE	120+-5mVp-p	

5. After chrominance recording current adjustment, adjust VR501 for 120+-5mVp-p as shown below.

(WITH OSCILLOSCOPE)

TP	ADJ.	MODE	INPUT
LUMINANCE /CHROMINANCE PACK -29 (CH-1) IC8301-9 (CH-2)	C8301	STOP	COLOUR BAR SIGNAL
TAPE	M.EQ.	SPEC.	
	OSCILLO-SCOPE	90degrees PHASE DIFFERENCE	

1. Set the Input signal selector to LINE position.
2. Supply the colour bar signal to LINE Input on the rear panel.
3. Connect the oscilloscope to luminance/chrominance pack-(29) for CH-1 and IC8301-9 for CH2.
4. Adjust C8301 so that the pilot burst signal is placed in 90degrees against the Input Colour Sub carrier as shown in FIG. E9.

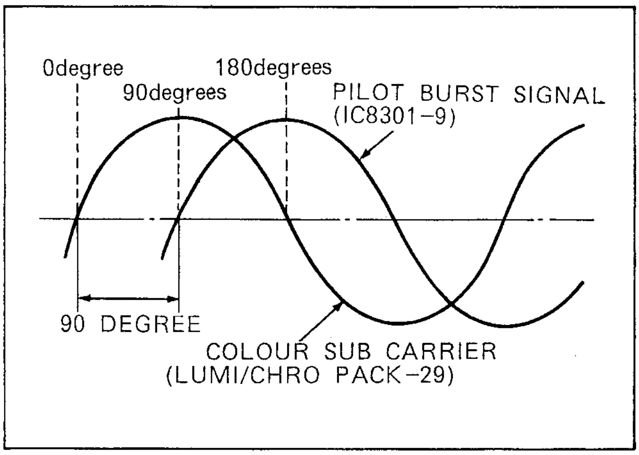

0degree
90degrees
180degrees
PILOT BURST SIGNAL (IC8301-9)
90 DEGREE
COLOUR SUB CARRIER (LUMI/CHRO PACK-29)

FIG. E9

2-4-10. WHITE AND DARK CLIP ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3024	VR3406 (W/C) VR3404 (D/C)	STOP	COLOUR BAR SIGNAL (S-VIDEO INPUT)
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	OSCILLO-SCOPE	A=210+-5% B=170+-5%	

1. Set the Input Signal Selector to S-VIDEO Position.
2. Set the tape Speed selector to LP position.
3. Supply the colour bar signal to S-Video Input.
4. Connect the oscilloscope to TP3024.
5. Adjust VR3406 (WHITE CLIP) and VR3404 (DARK CLIP) respectively so that the A level of white clip is 210+-5% and B level of dark clip is 170+-5% as shown in FIG. E10.

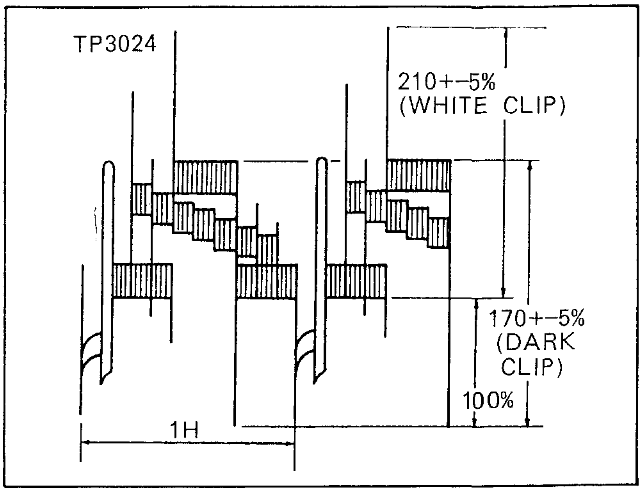


FIG. E10

Note:
Prior to Sync Tip Frequency Adjustment and Deviation Adjustment (Item 2-4-11), this adjustment must be completed.

2-4-11. SYNC TIP FREQUENCY AND DEVIATION ADJUSTMENT

((S-VHS MODE))

a. SYNC TIP FREQUENCY ADJSUTMENT

TP	ADJ.	MODE	INPUT
IC3402-11	VR3402	RECORDING	NO SIGNAL
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	FREQ. COUNTER	5.4MHz+-0.05MHz	

1. Record the no signal with S-VHS mode using S-VHS blank tape.
2. Adjust VR3402 so that the reading of frequency counter is 5.4MHz+-0.05MHz at IC3402-11.

b. DEVIATION ADJUSTMENT

(ADJUSTMENT METHOD 1)

TP	ADJ.	MODE	INPUT
TP3002	VR3403	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	OSCILLO-SCOPE	1.0+-0.15Vp-p	

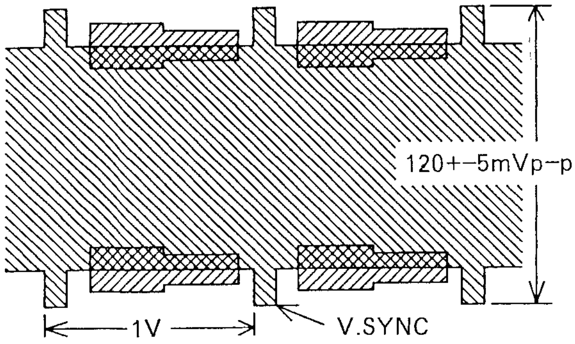


FIG. E14

* VHS LUMINANCE RECORDING CURRENT ADJ.

TP	ADJ.	MODE	INPUT
TP503(HOT) TP504(GND)	VR3104	RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M.EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	110+-5mVp-p	

1. Set the S-VHS selector to OFF position.
2. Set the Tape Speed Selector to LP position.
3. Connect the oscilloscpe to TP503 (HOT) and TP504 (GND).
4. Adjust VR3104 for 110+-5mVp-p as shown in FIG. E15.

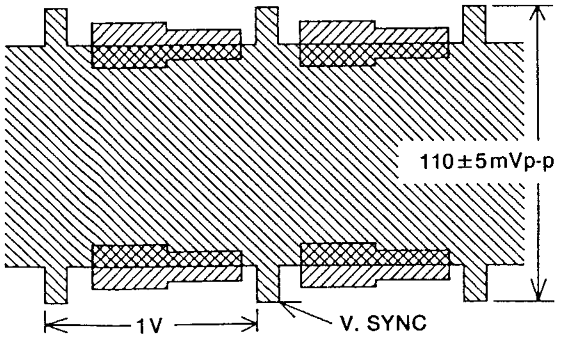


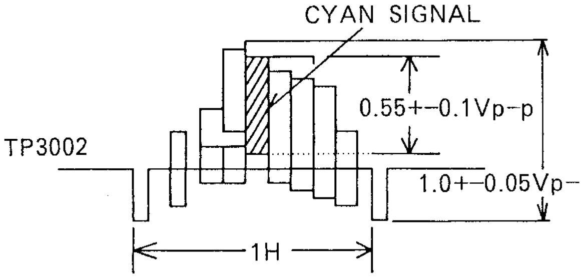
FIG. E15

Prior to Sub-Emphasis Limiter Balance Adjustment (2-4-8), White and Dark Clip Adjustment (2-4-10) and Sync Tip Frequency/Deviation Adjustment (2-4-11), this adjustment must be completed.

2-4-13. PLAYBACK VIDEO LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR3405(Y) VR8203(C)	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M.EQ.**	**SPEC.**	
S-VHS BLANK TAPE	OSCILLO-SCOPE	1.0+-0.05Vp-p (Y) 0.55+-0.1Vp-p (C)	

1. Set the Tape Speed Selector to LP position.
2. Connect the oscilloscope to Line out (TP3002).
3. Adjust VR3405 for 1.0+-0.05Vp-p and VR8203 for 0.55+-0.1Vp-p as shown in FIG. E16.



(LINE OUT) CONDITION: 75ohm TERMINATED

FIG. E16

Note:
"Y" means "Luminance"
"C" means "Chrominance"

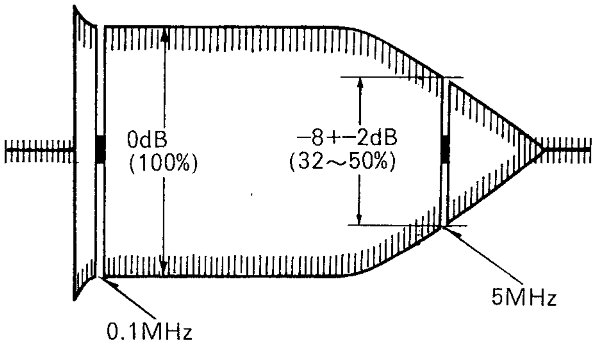
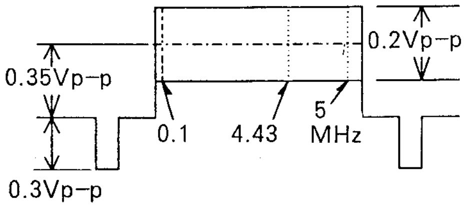


FIG. E17

2-4-14. S-VHS FREQUENCY RESPONCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
S-VIDEO OUTPUT	VR3101	SELF RECORDING	VIDEO SWEEP
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	VIDEO SWEEP/ OSCILLO-SCOPE	-8+-2dB (32~50%)	

1. Set the sweep generator output as shown below.



CONDITIONS: 1. BURST SIGNAL OFF
2. 150ohm TERMINATED

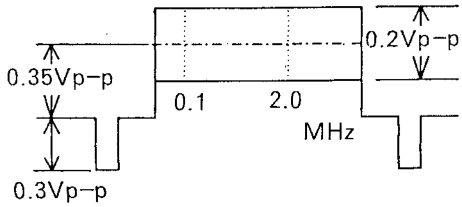
FIG. E18

2. Supply the video sweep signal to S-Video Input.
3. Set the Input Signal Selector to S-VHS position.
4. Playback the just recorded portion.
5. Adjust VR3101 so that the level at 5MHz becomes -8+-2dB (32~50%) comparing with the level at 0.1MHz as shown in FIG. E18.

2-4-15. VHS FREQUENCY RESPONSE ADJSUTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR3102 (SP) VR3103 (LP)	SELF RECORDING	VIDEO SWEEP
TAPE	M.EQ.	SPEC.	
BLANK TAPE	VIDEO SWEEP/ OSCILLO SCOPE	A=0+-1dB (90~110%):SP A=-2+-1dB (70~90%):LP	

1. Set the sweep generator output as shown in FIG. 19.



CONDITIONS: 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

FIG. E19

2. Play back the just recorded portion.
3. Adjust volume VR3102(SP), VR3103(LP) resoectively so that the level at 2MHz (A) becomes within specification comparing with the level at 0.1MHz as shown in FIG. E20.

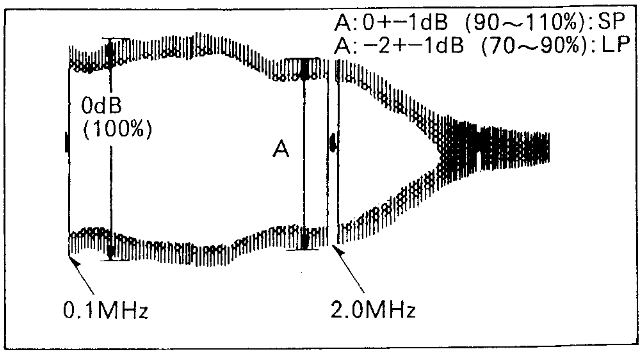


FIG. E20

2-4-16. LUMINANCE/CHROMINANCE SEPARATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3703	VR3701, VR3702	RECORDING	VIDEO SIGNAL (COLOUR BAR)
TP3701	VR3708, VR3707		
TP3702	VR3703, VR3704		VIDEO SIGNAL (MULTI BURST)
TAPE	M.EQ.	SPEC.	
S-VHS BLANK TAPE	OSILLO-SCOPE	MENTIONED BELOW	

1. Connect the oscilloscope to TP3703.
2. Set the VTR to recording mode.
3. Adjust VR3701 and VR3702 mutually so that the chrominance level is muximized as shown in FIG. E21.

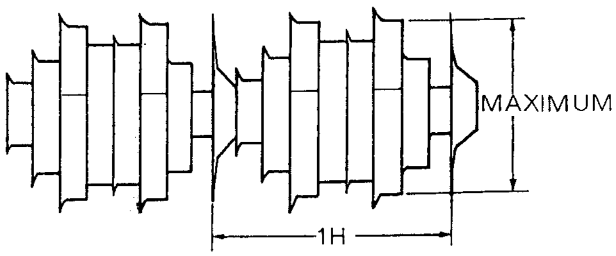


FIG. E21

4. Connect the oscilloscope to TP3701.
5. Adjust VR3708 and VR3707 mutually so that the chrominance level is minimized as shown in FIG. E22.

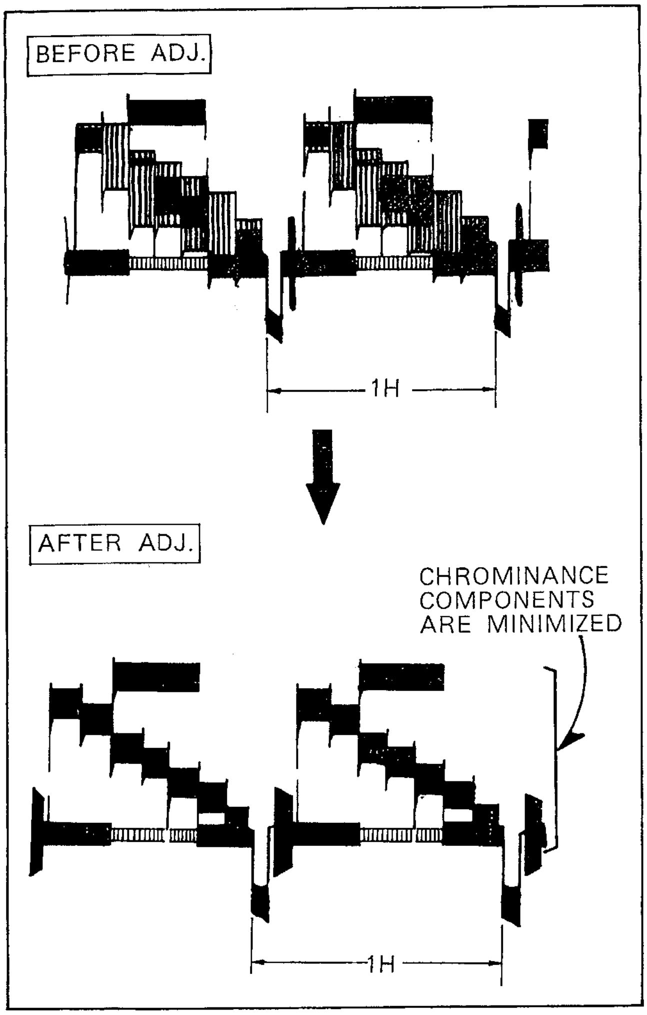

BEFORE ADJ.
1H
AFTER ADJ.
CHROMINANCE COMPONENTS ARE MINIMIZED
1H

FIG. E22

6. Set the video sweep generator output as shown in FIG.E23.

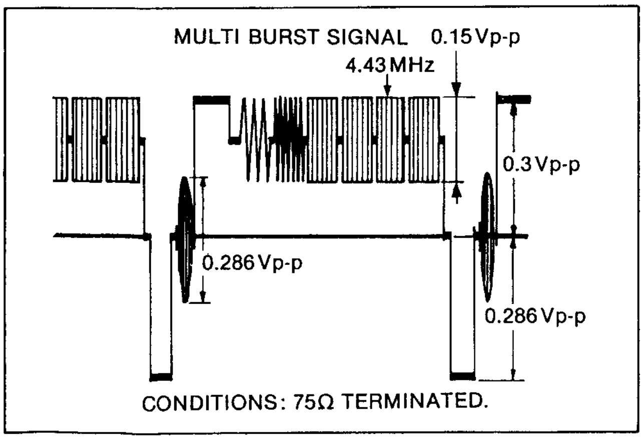

MULTI BURST SIGNAL 0.15Vp-p
4.43MHz
0.3Vp-p
0.286Vp-p
0.286Vp-p
CONDITIONS: 75Ω TERMINATED.

FIG. E23

7. Supply the multi burst signal from video sweep to Line Input.
8. Connect the oscilloscope to TP3702.
9. Adjustg VR3703 and VR3704 mutually so that the 4.43MHz burst signal is minimized as shown in FIG.E24.

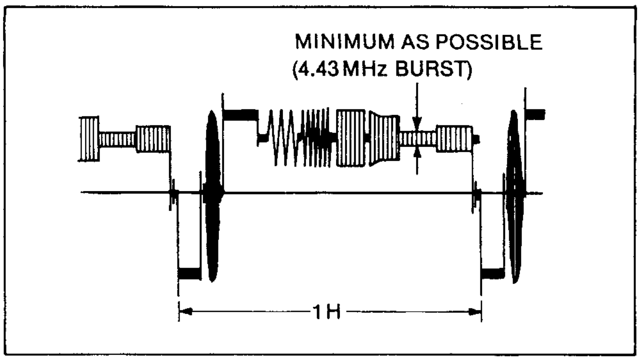

MINIMUM AS POSSIBLE
(4.43MHz BURST)
1H

FIG. E24

2–4–17. LUMINANCE NOISE REDUCTION BLANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC302–20	VR302	STOP	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
	OSCILLO–SCOPE	WAVEFORM IS MINIMIZED	

1. Set the Tape Speed Selector to LP position.
2. Connect the oscilloscope to pin20 of IC302 on the Luminance & Chrominance C.B.A.
3. Adjust VR302 so that the waveform is minimized.

Note:

Prior to the above adjustment, the HQ Amp Gain adjustment should be always completed.

2–4–18. HQ AMP GAIN ADJSUTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR301	STOP	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
	OSCILLO–SCOPE	1.0+–0.1Vp–p	

1. Set the Tape Speed Selector to "LP" position.
2. Connect the oscilloscope to video Line out (TP3002).
3. Adjust VR301 so that the video level is 1.0+–0.1Vp–p.

2-4-19. CHROMA RECURSIVE ADJSUTMENT

TP	ADJ.	MODE	INPUT
IC302-7	VR801 VR802	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	M.EQ.	SPEC.	
	OSCILLO-SCOPE	WAVEFORM IS MINIMIZED	

1. Play back the just recorded portion.
2. Connect the oscilloscope to pin7 of IC302 on the Luminance & Chrominance C.B.A.
3. Adjust VR801 and VR802 mutually so that the chrominance waveform is minimized as shown in FIG. E25.

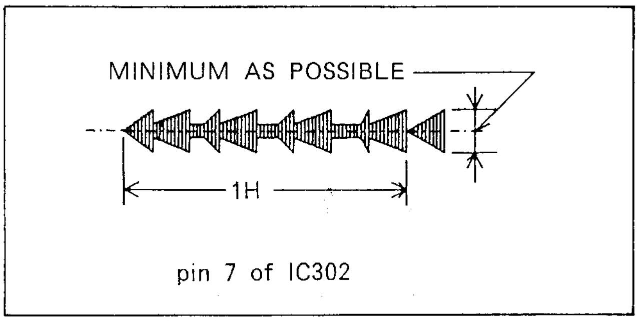

MINIMUM AS POSSIBLE
1H
pin 7 of IC302

FIG. E25

2-4-20. SECAM KILLER ADJUSTMENT **(VR6948/02)**

TP	ADJ.	MODE	INPUT
IC851-11	T851	SELF RECORDING	SECAM VIDEO SIGNAL
TAPE	M.EQ.	SPEC.	
BLANK TAPE	OSCILLO-SCOPE	MINIMUM AS POSSIBLE	

1. First,remove the SECAM Pack from the Luminance & Chrominance Pack.
   Next,reinstall the SECAM Pack to Luminance & Chrominance Pack on foil side.
   Finally solder the soldering portions of the SECAM Pack.

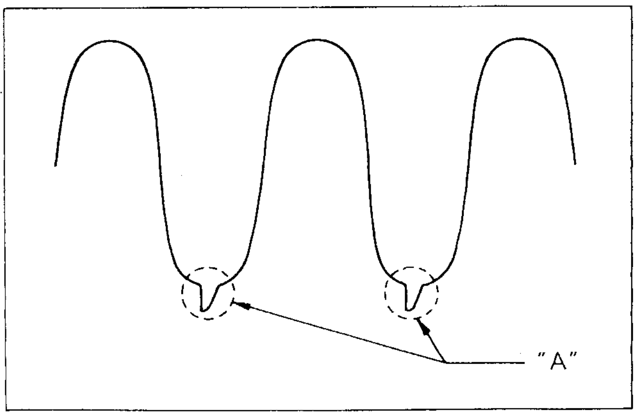


FIG. E26

2. Adjust T851 so that the points "A" becomes maximum on the waveform.

Note:
To make this adjustment,please set the SECAM Pack as shown below.

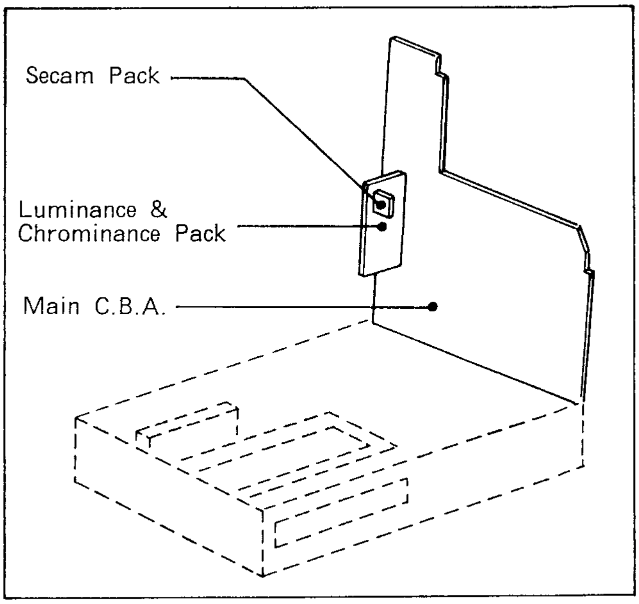

Secam Pack
Luminance & Chrominance Pack
Main C.B.A.

FIG. E27

2-4-21. JUMP VCO FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3301-10	VR3301	STOP	
TAPE	M.EQ.	SPEC.	
	FREQUENCY COUNTER	31.25+-0.3kHz	

1. Connect the Frepuency Counter to pin 10 of IC3301 through the amplifier as shown below.

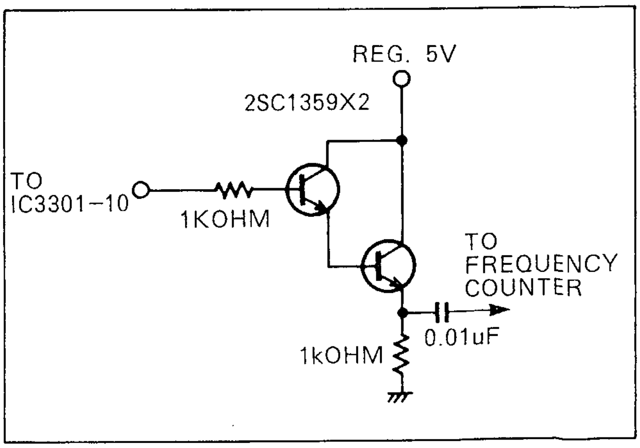

REG. 5V
2SC1359X2
TO IC3301-10
1KOHM
TO FREQUENCY COUNTER
0.01uF
1kOHM

FIG. E28 Amplifier Circuit

3. Adjust VR3301 so that the reading of Frequency Counter is 31.25+-0.3KHz.

2-4-22. CHROMA DELAY LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR3302	SELF RECORDING	VIDEO SIGNAL (MONO SCOPE)
TAPE	**M.EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	FLICKER IS MINIMIZED	

1. Set the Tape Speed Selector to LP mode.
2. Play back the just recorded portion in CUE mode.
3. Adjust VR3302 so the the flicker of luminance signal is minimized as shown in FIG. E29.

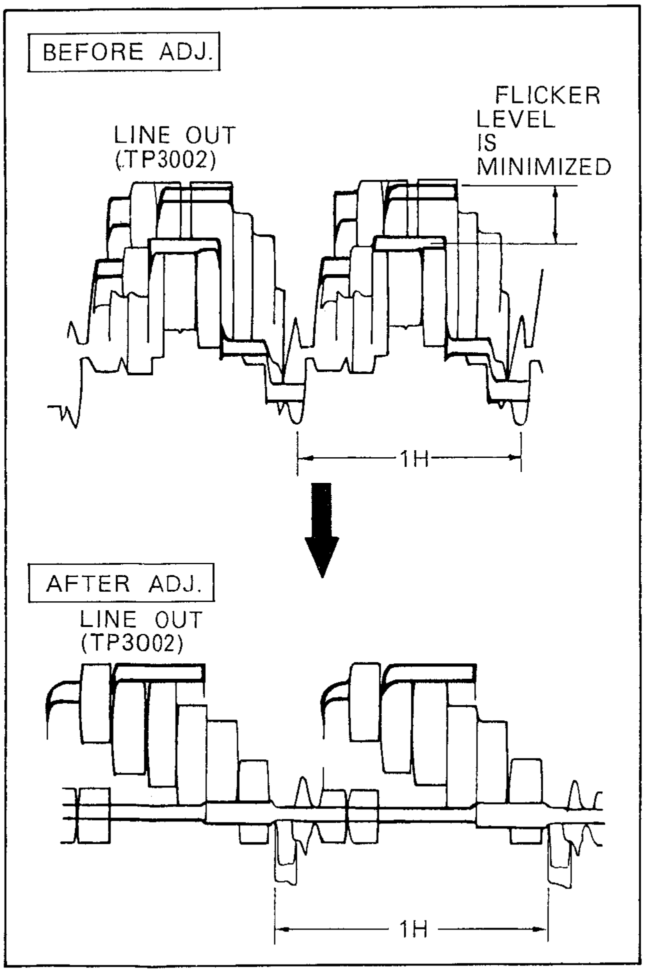

BEFORE ADJ.
LINE OUT
(TP3002)
FLICKER
LEVEL
IS
MINIMIZED
1H
AFTER ADJ.
LINE OUT
(TP3002)
1H

FIG. E29

Prior to Jump VCO Free Rnu Adjustment (2-4-21), this adjustment must be completed.

2-4-23. CHROMINANCE DELAY LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR8201 (STILL) VR8202 (CUE)	STILL OR CUE	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M.EQ.**	**SPEC.**	
S-VHS BLANK TAPE	OSCILLO-SCOPE	FLICKER(CY AN) LEVEL IS MINIMIZED	

1. Connect the oscilloscope to TP3002.
2. Play back the just recorded portion in "STILL" mode.
3. Adjust VR8201 so that the flicker (cyan) level is minimized as shown in FIG. E.
4. Next, place the VTR in CUE mode.
5. Adjust VR8202 so that the flicker (cyan) level is minimized as shown in FIG. E30.

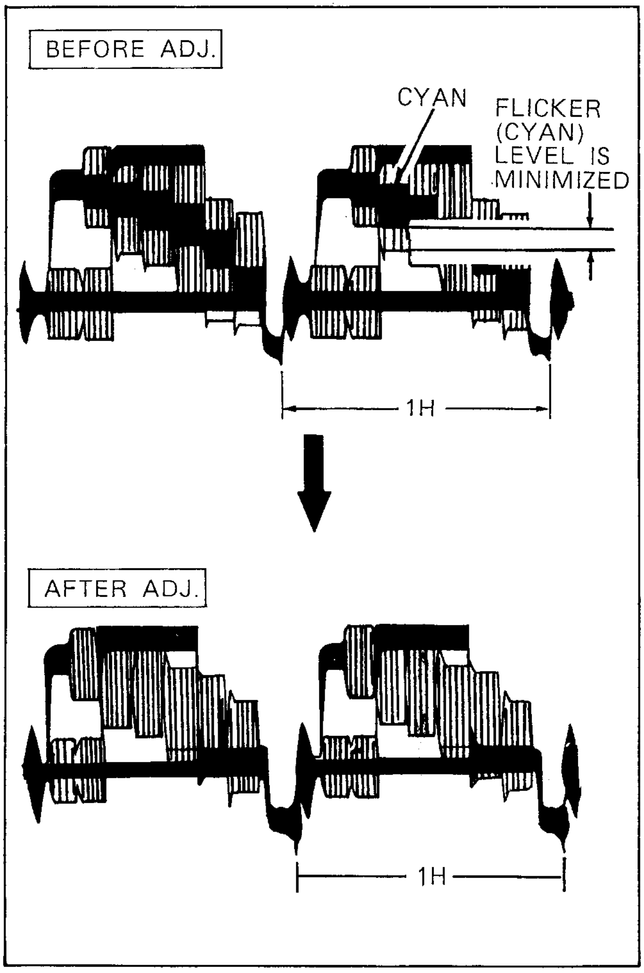

BEFORE ADJ.
CYAN
FLICKER
(CYAN)
LEVEL IS
MINIMIZED
1H
AFTER ADJ.
1H

FIG. E30

NORMAL AUDIO Section

2-4-24. AUDIO BLAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002(HOT) TP4003(GND)	VR4002	RECORDING	
TAPE	**M.EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.5+-0.1mVrms	

Note:

1) Make a short circuit at terminal of the Audio Input.

2-4-25. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT (TP4001)	VR4001	SELF RECORDING	1kHz,-10dB AUDIO SIGNAL VIDEO SIGNAL
TAPE	**M.EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ V.T.V.M.	E-E LEVEL=-8+-2dB (300mVrms~500mVrms) PLAYBACK LEVEL= E-E LEVEL+-0.5dB (+-20mVrms)	

1. Set the Audio Playback Mode Selector to NORMAL position. (Both the Left and Right Indicators are not lit.
2. Playback the just recorded portion.
3. Adjust VR4001 so that the level of the playback waveform becomes E-E level+-0.5dB (+-20mVrms)

Note:

1. Befor this adjustment, "Tape Interchangeability Adjustment" and "Audio Bias Current Adjustment" must be completed.
2. Video signal must be connected to video input.

Hi-Fi AUDIO Section

2-4-26. LEVEL METER SENSITIVITY ADJUSTMENT

TP	ADJ.	MODE	INPUT
LEVEL METER	VR4004 (L) VR4005 (R)	STOP	1kHz, -10dB
TAPE	**M.EQ.**	**SPEC.**	
	SIGNAL GENERATOR	0dB indicator just lights up	

1. Set the Audio Playback Mode Selector to STEREO position. (Both the Left and Right Indicators are lit.)
2. Set the output of the Signal Generator to 1KHz and -10dB, and supply it to both Input Jacks (L) and (R).
   Next, Adjust the recording level with the Audio Rec Level Controls so that the audio outputs are 400mVp-p at both Output Jacks (L) and (R).
3. Adjust VR4004 so that the 0dB indicator just lights up on the L-ch level meter as shown below.
4. Adjust VR4005 so that the 0dB indicator just lights up on the R-ch level meter as shown below.

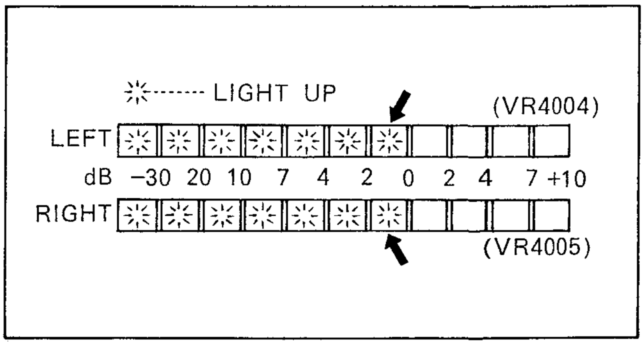


FIG. E31

2-4-27. Hi-Fi AUDIO RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4507(HOT) SHIELD CASE (GND)	VR4503	RECORDING	
TAPE	**M.EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	220+-10 mVp-p	

1. Set the Input Select SW to LINE.
2. Set the Audio Playback Mode Selector to "STEREO" position. (Both the Left and Right Indicators are lit.)
3. Connect the OSCILLOSCOPE to TP4507 (HOT) and SHIELD CASE (GND).
4. Adjust VR4503 so that the Audio recording current become 220+-10mVp-p as shown below.

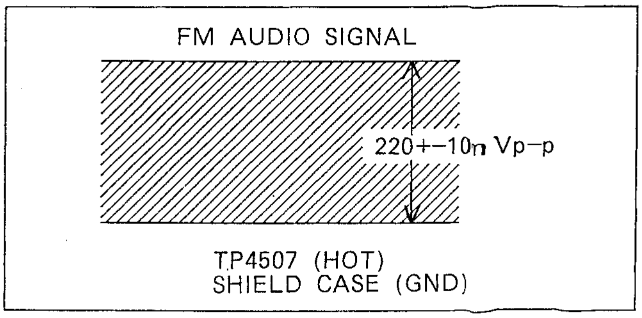


FIG. E32

Note:

Prior to HiFi Audio Muting Adjustment, this adjustment must be completed.

2-4-28. AUDIO HEAD SWITCHING SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4511 TP2001	VR4510	PLAY	
TAPE	**M.EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8 125H3F	OSCILLO-SCOPE	$T=T2-\frac{(T2-T1)}{2}$ msec.	

1. Play back the alignment tape (VFJ8125H3F).
2. Connect the oscilloscope to TP4511 and TP2001.
3. Play back the just recorded portion.
4. Adjust VR4510 while listening to the stereo playback sound.
   (1) Confirm the "T2" time when the abnormal sound just occurs during turning clockwise on VR4510.
   (2) Confirm the "T1" time when the abnormal sound just occurs during turning counter clockwise on VR4510.
   (3) Adjust VR4510 so that the falling edge "T" of Audio H.SW pulse becomes the center portion of the both "T2" and "T1".

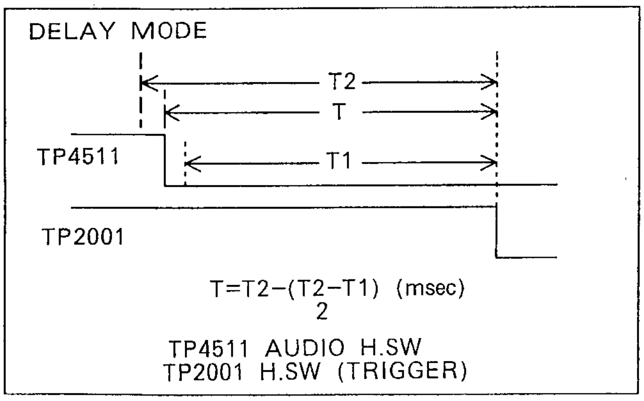


FIG. E33

2-4-29. AUDIO MUTING ADJUSTMENT

TP	ADJ.	MODE	INPUT
	VR4505	SELF RECORDING	VIDEO SIGNAL
TAPE	**M.EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	STEREO indication just lights up	

Note 1:
Before this adjustment "Tape Interchangeability Adjustment" must be completed.

Note 2:
To achieve this adjustment, the luminance recording current adjustment should be performed as follows.
First connect the oscilloscope to TP503 (HOT) and TP504 (GND) and then adjust VR501 for 150mVp-p [refer to S-VHS Luminance Recording current Adjustment (Item 2-4-12)].
After this adjustment, the luminance recording current adjustment must be returned to original position again.

1. Set Audio Playback Mode Selector to STEREO position. (Both the Left and Right Indicators are lit.)
2. Preadjust VR4505 until the Hi-Fi indicator on the front panel display turns the NORMAL indication.
3. Then slowly adjust VR4505 where the STEREO indication just lights up.
4. Confirm that the abnormal sound does not contain in the playback Hi-Fi sound.

2-4-30. Hi-Fi AUDIO CARRIER FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC4502-11 (L) IC4502-20 (R)	VR4501 (L) VR4509 (R)	STOP	
TAPE	**M.EQ.**	**SPEC.**	
	FREQUE NCY COUNTER	1400+-10KHz (L) 1800+-10KHz (R)	

2-4-31. AUDIO DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC4502-5 (L) IC4502-26 (R)	VR4502 (L) VR4507 (R)	RECORDING	1KHz, -10dB (316mVp-p) AUDIO SIGNAL
TAPE	**M.EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ D.V.M.	280mVp-p	

1. Set the Audio Rec Level Control Selector to MANUAL position. (Both the left and Right Indicators are not lit.)
2. Set the output of the Signal generator to 1KHz and -10dB, and supply it to both input Jacks (L) and (R).
   Next, adjust the recording with the Audio Rec Level Controls so that the audio outputs are 400mVp-p at both Output Jacks (L) and (R).
3. Adjust VR4502 to 280mVp-p at IC4502-5 on HiFi AUDIO C.B.A. for L-Channel.
4. Adjust VR4507 to 280mVp-p at IC4502-26 on HiFi AUDIO C.B.A. for R-Channel.

2-4-32. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR4504 (L) VR4508 (R)	SELF RECORDING	SIGNAL GENERATOR (1kHz, −10dB)/ VIDEO SIGNAL
TAPE	M.EQ.	SPEC.	
BLANK TAPE	SIGNAL GENERATOR/ V.T.V.M	E−E LEVEL=−8+−2dB (300mVrms~500mVrms) PLAYBACK LEVEL= E−E LEVEL+−0.5dB (+−20mVrms)	

Note:
Before this adjustment, Tape Interchangeability Adjustment must be completed.

1. Play back the just recorded portion.
2. Adjust VR4504 and VR4508 volumes respectively so that the level of the playback becomes E−E level+−0.5dB (+−20mVrms).

TIMER Section

2-4-33. AN ELECTRICITY FAILUREDETECTION ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7551−(12)	VR7502		
TAPE	M.EQ.	SPEC.	
	OSCILLOSCOPE/ 2DC POWER SUPPLIES		

Note:
1) Do not connect the AC power plug.
2) Make a short circuit at C7571 to discharge. (refer to the Technical Information)

1. Set the voltage of the DC power supply (A) for 4.6+−0.05V and supply to IC7551−8 (+) and GND (−).
2. Set the voltage of the DC power supply (B) for 45+−1V and supply to the Channel Select Pack C.B.A. −15.
3. Turn the VR7502 until the voltage at IC7551−(12) is High Level.
4. Turn the VR7502 slowly until the voltage at IC7551−(12) is Low Level (0V).
5. Change the voltage of the DC power supply (A) from 4.6+−0.05V to 4.8+−0.05V.
6. Confirm the voltage at IC7551−(12) is High Level.

2-4-34. TIMER CLOCK ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7501−(37)	C7501		
TAPE	M.EQ.	SPEC.	
	FREQUENCY COUNTER	3906.25+−0.008us	

Note:
1) Do not connect the AC power plug.
2) Make a short circuit at C7571 to discharge.

1. Set the voltage of the DC power supply for 5.8V+−0.1V and supply it to P7506−6 (+) and GND (−).
2. Connect a jumper wire between P7506−5 and GND.
3. Connect the frequency counter to IC7501−37.
4. Adjust C7501 for 3906.25us+−0.008us.

2-4-35. TIMER MUTING FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7651−(4)	VR7660		
TAPE	M.EQ.	SPEC.	
	FREQUENCY COUNTER	15.625+−0.05KHz	

Note:
1) To make this adjustment, please prepare the following circuit as shown below.
2) Make a short circuit at R7655.

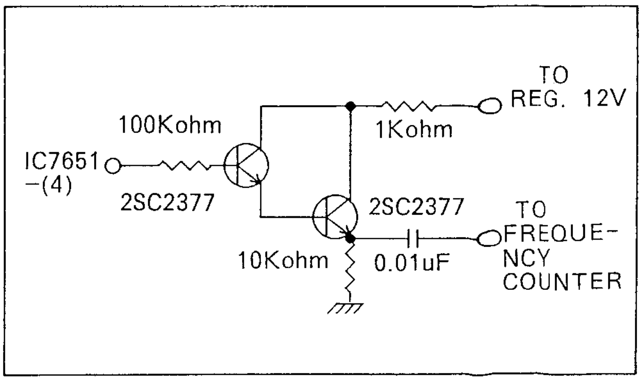
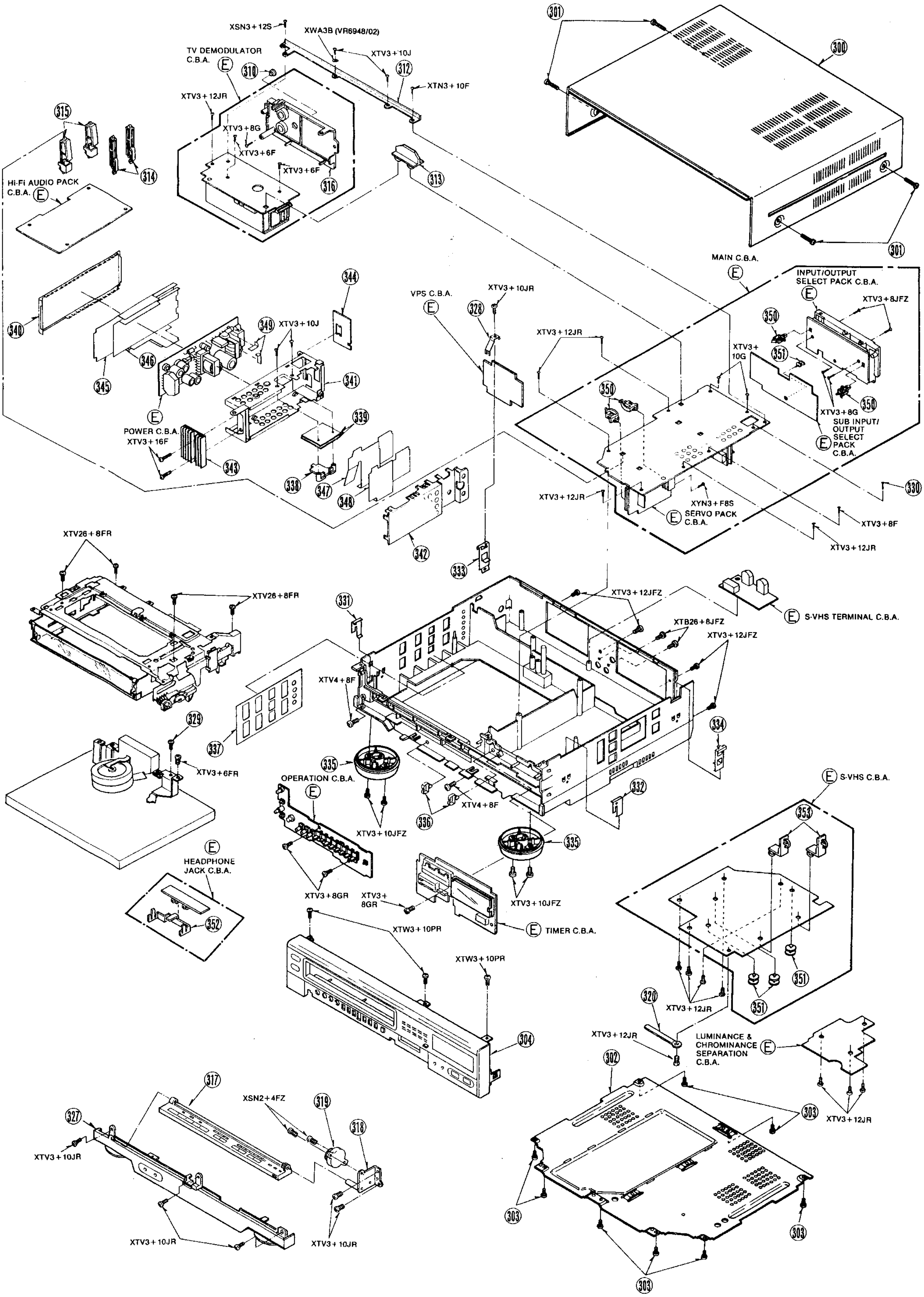


FIG. E34

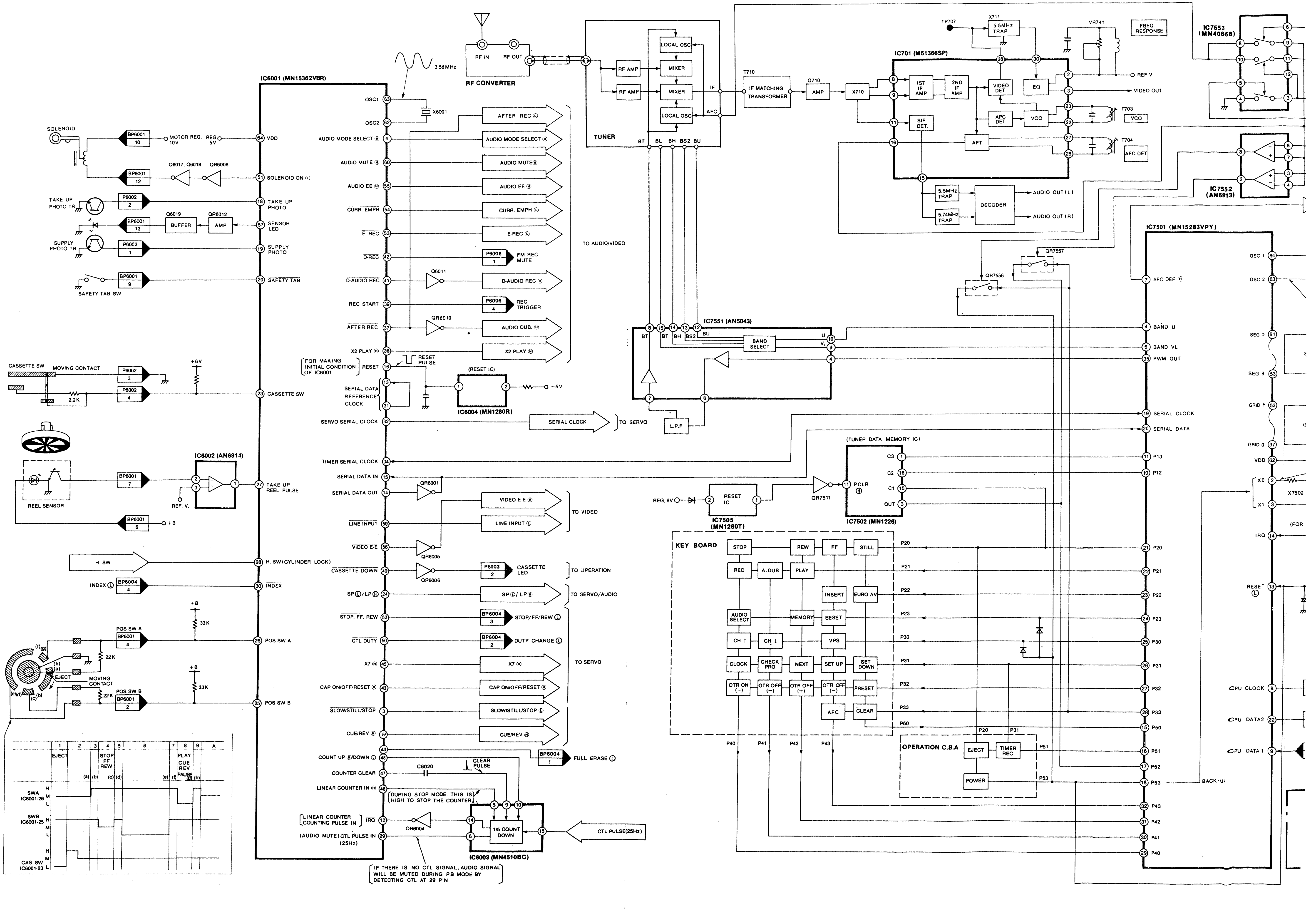

301
300
301
XSN3+12S
XWA3B (VR6948/02)
XTV3+10J
TV DEMODULATOR C.B.A.
E
310
312
XTN3+10F
XTV3+12JR
XTV3+8G
XTV3+6F
XTV3+6F
316
313
315
314
Hi-Fi AUDIO PACK C.B.A.
E
MAIN C.B.A.
E
INPUT/OUTPUT SELECT PACK C.B.A.
E
XTV3+8JFZ
344
VPS C.B.A.
E
XTV3+10JR
328
XTV3+12JR
350
351
XTV3+ 10G
350
350
XTV3+8G
SUB INPUT/ OUTPUT SELECT PACK C.B.A.
E
340
349
XTV3+10J
346
345
341
E
POWER C.B.A.
XTV3+16F
339
343
338
347
348
342
333
XTV3+12JR
XYN3+F8S
SERVO PACK C.B.A.
E
330
XTV3+8F
XTV3+12JR
XTV26+8FR
XTV26+8FR
331
XTV3+12JFZ
XTB26+8JFZ
XTV3+12JFZ
E
S-VHS TERMINAL C.B.A.
XTV4+8F
337
329
XTV3+6FR
335
OPERATION C.B.A.
E
XTV3+10JFZ
336
XTV4+8F
332
334
335
E
S-VHS C.B.A.
353
E
HEADPHONE JACK C.B.A.
352
XTV3+8GR
XTV3+ 8GR
XTV3+10JFZ
E
TIMER C.B.A.
XTW3+10PR
XTW3+10PR
304
351
351
XTV3+12JR
320
XTV3+12JR
LUMINANCE & CHROMINANCE SEPARATION C.B.A.
E
302
317
XSN2+4FZ
319
318
327
XTV3+10JR
303
XTV3+12JR
303
XTV3+10JR
XTV3+10JR
303
303

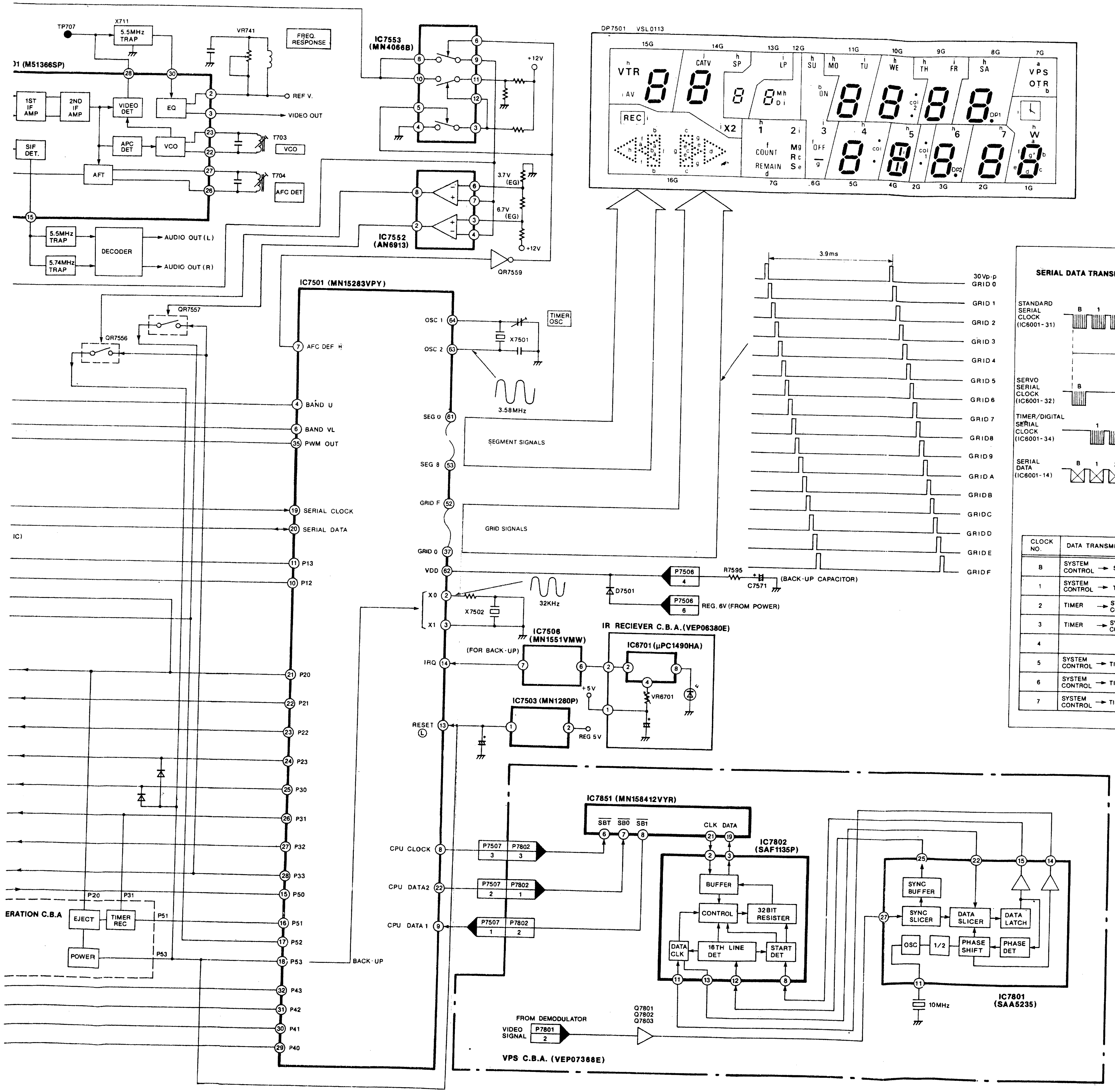
Mechanical partslist

300	4822 443 62696	Top cover
301	4822 502 13239	Screw top cover
303	4822 502 11828	Screw bottom plate
304	4822 443 40772	Front panel assembly
317	4822 443 62695	Door panel assembly
327	4822 443 40773	Front lower panel
335	4822 462 41349	Foot

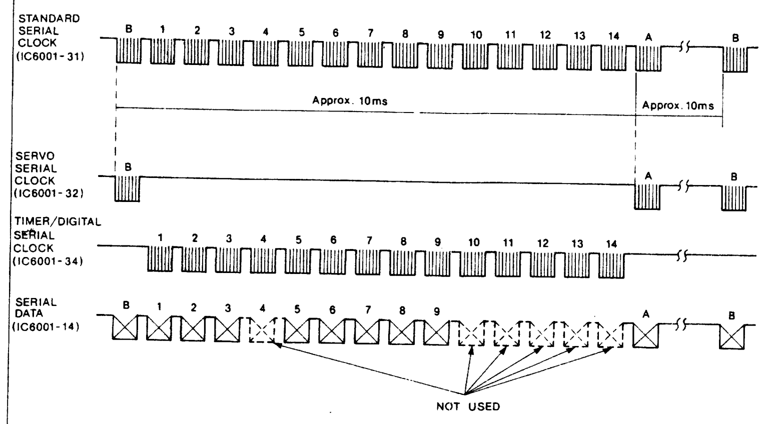
Miscellaneous

4822 321 23167	Antenna cable
4822 321 21035	Audio connection cable
4822 321 23168	S–VHS connection cable
4822 321 10608	Mains connection cable

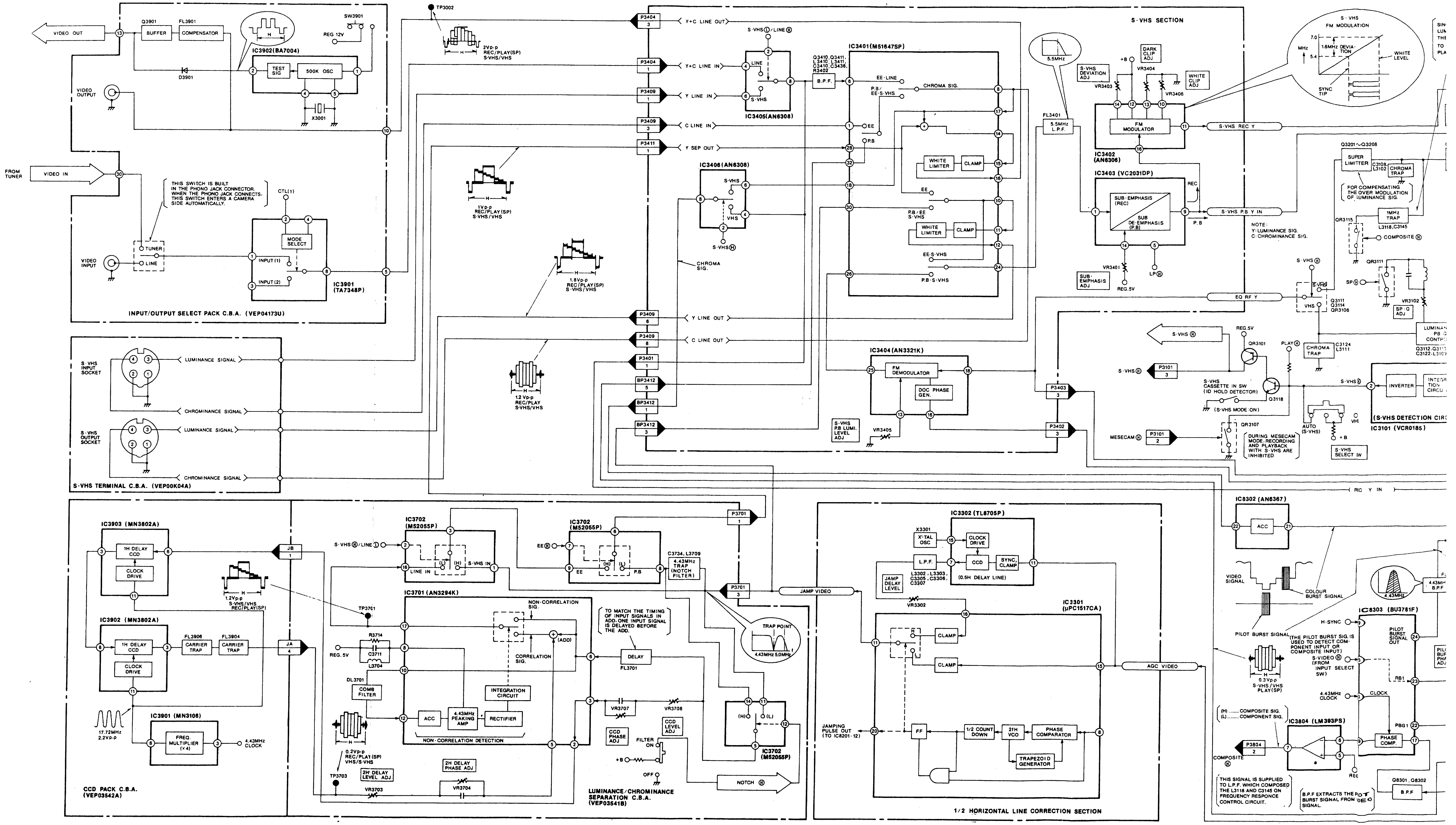

RF CONVERTER
RF IN
RF OUT
3.58MHz
IC6001 (MN15362VBR)
SOLENOID
BP6001 10
MOTOR REG. 10V
REG 5V
VDD
BP6001 12
Q6017, Q6018
QR6008
SOLENOID ON Ⓛ
TAKE UP PHOTO TR
P6002 2
TAKE UP PHOTO
BP6001 13
Q6019
BUFFER
QR6012
AMP
SENSOR LED
SUPPLY PHOTO TR
P6002 1
SUPPLY PHOTO
BP6001 9
SAFETY TAB
SAFETY TAB SW
OSC1
OSC2
X6001
AUDIO MODE SELECT Ⓗ
AUDIO MUTE Ⓗ
AUDIO EE Ⓗ
CURR. EMPH
E. REC
D-REC
D-AUDIO REC
REC START
AFTER REC
X2 PLAY Ⓗ
AFTER REC Ⓛ
AUDIO MODE SELECT Ⓗ
AUDIO MUTE Ⓗ
AUDIO EE Ⓗ
CURR. EMPH Ⓗ
E-REC Ⓛ
P6006 1
FM REC MUTE
Q6011
D-AUDIO REC Ⓗ
P6006 4
REC TRIGGER
QR6010
AUDIO DUB. Ⓗ
X2 PLAY Ⓗ
TO AUDIO/VIDEO
CASSETTE SW
MOVING CONTACT
P6002 3
P6002 4
+6V
2.2K
CASSETTE SW
FOR MAKING INITIAL CONDITION OF IC6001
RESET
RESET PULSE
(RESET IC)
IC6004 (MN1280R)
+5V
SERIAL DATA REFERENCE CLOCK
SERVO SERIAL CLOCK
SERIAL CLOCK
TO SERVO
IC6002 (AN6914)
BP6001 7
REEL SENSOR
REF. V.
TAKE UP REEL PULSE
BP6001 6
+B
TIMER SERIAL CLOCK
SERIAL DATA IN
SERIAL DATA OUT
QR6001
VIDEO E-E Ⓗ
LINE INPUT
LINE INPUT Ⓛ
TO VIDEO
VIDEO E-E
QR6005
H. SW
H. SW (CYLINDER LOCK)
CASSETTE DOWN
QR6006
P6003 2
CASSETTE LED
TO OPERATION
INDEX Ⓛ
BP6004 4
INDEX
SP Ⓛ/LP Ⓗ
SP Ⓛ/ LP Ⓗ
TO SERVO/AUDIO
STOP. FF. REW
BP6004 3
STOP/FF/REW Ⓛ
CTL DUTY
BP6004 2
DUTY CHANGE Ⓛ
X7 Ⓗ
TO SERVO
CAP ON/OFF/RESET Ⓗ
SLOW/STILL/STOP
SLOW/STILL/STOP Ⓛ
CUE/REV Ⓗ
POS SW A
BP6001 4
33K
22K
EJECT
MOVING CONTACT
POS SW B
BP6001 2
BP6004 1
FULL ERASE Ⓛ
COUNT UP Ⓗ/DOWN Ⓛ
COUNTER CLEAR
C6020
CLEAR PULSE
LINEAR COUNTER IN Ⓗ
DURING STOP MODE, THIS IS HIGH TO STOP THE COUNTER.
LINEAR COUNTER COUNTING PULSE IN
IRQ
QR6004
1/5 COUNT DOWN
(AUDIO MUTE) CTL PULSE IN (25Hz)
IC6003 (MN4510BC)
CTL PULSE(25Hz)
IF THERE IS NO CTL SIGNAL, AUDIO SIGNAL WILL BE MUTED DURING PB MODE BY DETECTING CTL AT 29 PIN
1 2 3 4 5 6 7 8 9 A
EJECT
STOP FF REW
PLAY CUE REV PAUSE
(a) (b) (c) (d) (e) (f) (g) (h)
SWA IC6001-26
SWB IC6001-25
CAS SW IC6001-23
H M L
TUNER
RF AMP
LOCAL OSC
MIXER
IF
AFC
BT BL BH BS2 BU
T710
IF MATCHING TRANSFORMER
Q710
AMP
X710
TP707
X711
5.5MHz TRAP
VR741
FREQ. RESPONSE
IC701 (M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
REF V.
VIDEO OUT
SIF DET.
APC DET
VCO
T703
AFT
T704
AFC DET
5.5MHz TRAP
5.74MHz TRAP
DECODER
AUDIO OUT (L)
AUDIO OUT (R)
IC7553 (MN4066B)
IC7552 (AN6913)
QR7557
QR7556
IC7551 (AN5043)
BAND SELECT
U
VL
L.P.F
(TUNER DATA MEMORY IC)
C3 C2 C1 OUT
PCLR
IC7502 (MN1226)
QR7511
REG. 6V
RESET IC
IC7505 (MN1280T)
KEY BOARD
STOP REW FF STILL
REC A.DUB PLAY
INSERT EURO AV
AUDIO SELECT
MEMORY
BESET
CH ↑ CH ↓
VPS
CLOCK
CHECK PRO
NEXT
SET UP
SET DOWN
OTR ON (+)
OTR OFF (−)
OTR OFF (+)
OTR OFF (−)
PRESET
AFC
CLEAR
P20 P21 P22 P23 P30 P31 P32 P33 P50
P40 P41 P42 P43
OPERATION C.B.A
EJECT
TIMER REC
POWER
P51 P53
IC7501 (MN15283VPY)
AFC DEF Ⓗ
BAND U
BAND VL
PWM OUT
SERIAL CLOCK
SERIAL DATA
P13 P12
P20 P21 P22 P23 P30 P31 P32 P33 P50 P51 P52 P53 P43 P42 P41 P40
BACK-U
OSC 1
OSC 2
SEG 0
SEG 8
GRID F
GRID 0
VDD
X0
X1
X7502
(FOR
IRQ
RESET Ⓛ
CPU CLOCK
CPU DATA2
CPU DATA 1

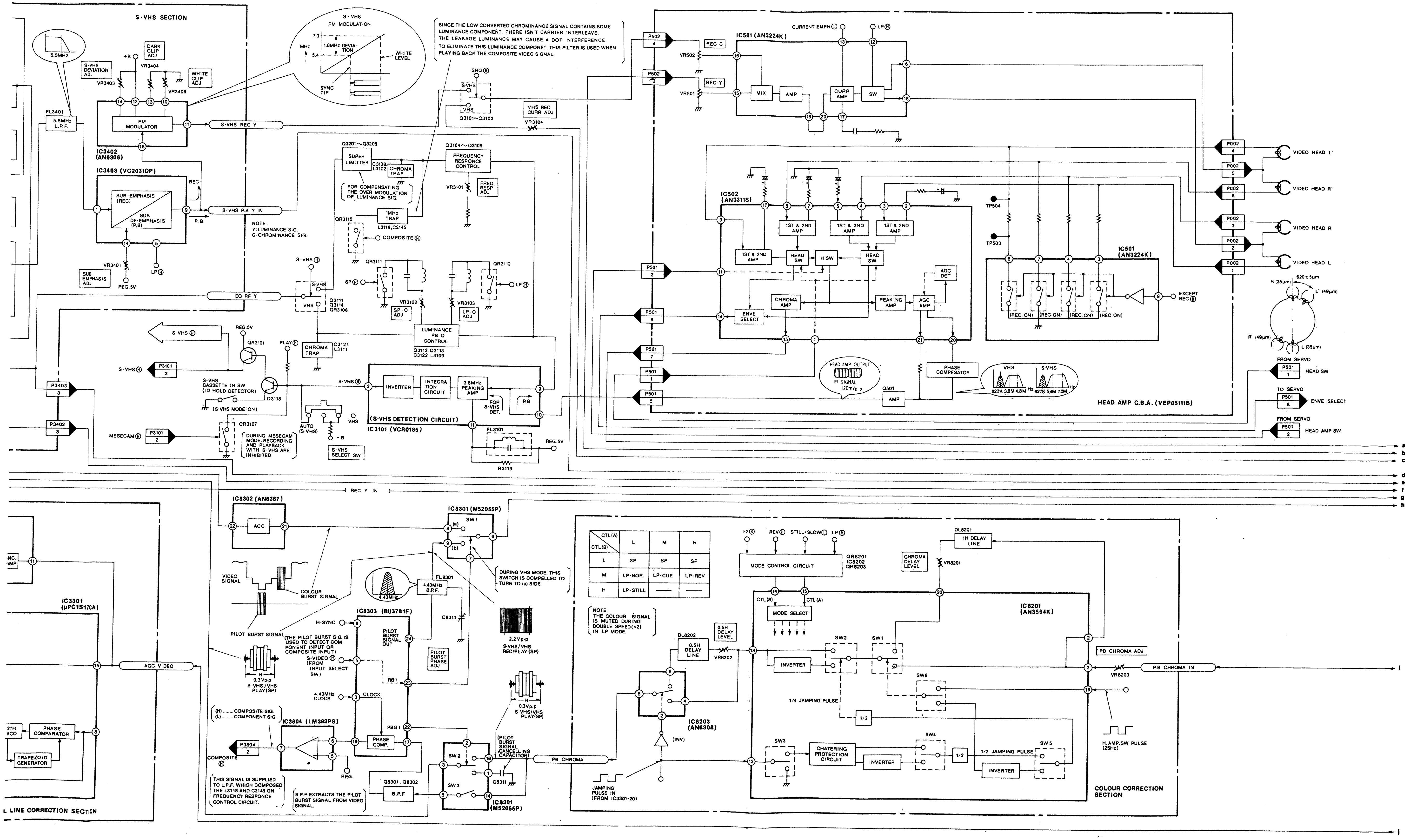

TP707
X711
5.5MHz TRAP
VR741
FREQ. RESPONSE
)1 (M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
REF V.
VIDEO OUT
SIF DET.
APC DET
VCO
T703
AFT
T704
AFC DET
5.5MHz TRAP
5.74MHz TRAP
DECODER
AUDIO OUT (L)
AUDIO OUT (R)
IC7553 (MN4066B)
+12V
IC7552 (AN6913)
3.7V (EG)
6.7V (EG)
QR7559
DP7501 VSL0113
VTR
AV
CATV
SP
LP
SU MO TU WE TH FR SA
ON
VPS
OTR
REC
X2
COUNT
REMAIN
OFF
DP1
DP2
15G 14G 13G 12G 11G 10G 9G 8G 7G
16G 7G 6G 5G 4G 2G 3G 2G 1G
IC7501 (MN15283VPY)
QR7557
QR7556
AFC DEF H
OSC 1
OSC 2
X7501
TIMER OSC
3.58MHz
BAND U
BAND VL
PWM OUT
SEG 0
SEG 8
SEGMENT SIGNALS
GRID F
GRID SIGNALS
GRID 0
SERIAL CLOCK
SERIAL DATA
P13
P12
VDD
P7506
R7595
C7571
(BACK-UP CAPACITOR)
D7501
REG. 6V (FROM POWER)
X0
X1
X7502
32KHz
IC7506 (MN1551VMW)
(FOR BACK-UP)
IRQ
IR RECIEVER C.B.A. (VEP06380E)
IC6701 (μPC1490HA)
VR6701
+5V
IC7503 (MN1280P)
RESET
REG 5V
P20 P21 P22 P23 P30 P31 P32 P33 P50 P51 P52 P53 P43 P42 P41 P40
ERATION C.B.A
EJECT
TIMER REC
POWER
BACK-UP
3.9ms
30Vp-p
GRID 0 GRID 1 GRID 2 GRID 3 GRID 4 GRID 5 GRID 6 GRID 7 GRID 8 GRID 9 GRID A GRID B GRID C GRID D GRID E GRID F
IC7851 (MN158412VYR)
SBT SB0 SB1
CLK DATA
IC7802 (SAF1135P)
BUFFER
CONTROL
32BIT RESISTER
DATA CLK
16TH LINE DET
START DET
CPU CLOCK
CPU DATA2
CPU DATA 1
P7507 P7802
SYNC BUFFER
SYNC SLICER
DATA SLICER
DATA LATCH
OSC
1/2
PHASE SHIFT
PHASE DET
10MHz
IC7801 (SAA5235)
FROM DEMODULATOR
VIDEO SIGNAL
P7801
Q7801 Q7802 Q7803
VPS C.B.A. (VEP07388E)

SERIAL DATA TRANSMISSION


STANDARD SERIAL CLOCK (IC6001-31)
B 1 2 3 4 5 6 7 8 9 10 11 12 13 14 A B
Approx. 10ms
Approx. 10ms
SERVO SERIAL CLOCK (IC6001-32)
TIMER/DIGITAL SERIAL CLOCK (IC6001-34)
SERIAL DATA (IC6001-14)
NOT USED

CLOCK NO.	DATA TRANSMISSION	CONTENTS OF DATA	CLOCK NO.	DATA TRANSMISSION	CONTENTS OF DATA
B	SYSTEM CONTROL → SERVO	CAP, CYL CONTROL	8	SYSTEM CONTROL → TIMER	COUNTER/TAPE REMAINING CODE
1	SYSTEM CONTROL → TIMER	TAPE REMAINING M/S DISPLAY, DEW	9	SYSTEM CONTROL → TIMER	COUNTER/TAPE REMAINING CODE
2	TIMER → SYSTEM CONTROL	WIRELESS REMOCON TIMER CODE	10	NOT USED	
3	TIMER → SYSTEM CONTROL	OPERATION KEY CODE	11	NOT USED	
4	NOT USED		12	NOT USED	
5	SYSTEM CONTROL → TIMER	PRESENT CONDITION OF VTR	13	NOT USED	
6	SYSTEM CONTROL → TIMER	POWER ON/OFF SLOW SPEED	14	NOT USED	
7	SYSTEM CONTROL → TIMER	COUNTER DISPLAY CODE/TAPE REMAINING CODE	A	SYSTEM CONTROL → SERVO	SAME AS NO. B


VIDEO OUT
Q3901
BUFFER
FL3901
COMPENSATOR
IC3902(BA7004)
TEST SIG
500K OSC
SW3901
REG 12V
D3901
X3001
VIDEO OUTPUT
FROM TUNER
VIDEO IN
THIS SWITCH IS BUILT IN THE PHONO JACK CONNECTOR. WHEN THE PHONO JACK CONNECTS, THIS SWITCH ENTERS A CAMERA SIDE AUTOMATICALLY.
CTL(1)
MODE SELECT
TUNER
LINE
VIDEO INPUT
INPUT(1)
INPUT(2)
IC3901 (TA7348P)
INPUT/OUTPUT SELECT PACK C.B.A. (VEP04173U)
S·VHS INPUT SOCKET
LUMINANCE SIGNAL
CHROMINANCE SIGNAL
S·VHS OUTPUT SOCKET
S·VHS TERMINAL C.B.A. (VEP00K04A)
TP3002
2Vp-p REC/PLAY(SP) S·VHS/VHS
1Vp-p REC/PLAY(SP) S·VHS/VHS
1.8Vp-p REC/PLAY(SP) S·VHS/VHS
1.2 Vp-p REC/PLAY S·VHS/VHS
P3404
Y+C LINE OUT
Y+C LINE IN
P3409
Y LINE IN
C LINE IN
P3411
Y SEP OUT
Y LINE OUT
C LINE OUT
P3401
BP3412
S·VHS(L)/LINE(H)
IC3405(AN6308)
Q3410, Q3411, L3410, L3411, C3410, C3436, R3402
B.P.F.
IC3401(M51647SP)
EE·LINE
P.B/EE·S·VHS
CHROMA SIG.
EE
P.B
WHITE LIMITER
CLAMP
P.B/EE S·VHS
EE·S·VHS
P.B·S·VHS
IC3406(AN6308)
S·VHS
VHS
S·VHS(H)
CHROMA SIG.
IC3404(AN3321K)
FM DEMODULATOR
DOC PHASE GEN.
S·VHS P.B LUMI. LEVEL ADJ
VR3405
S·VHS SECTION
5.5MHz
FL3401
5.5MHz L.P.F.
S·VHS DEVIATION ADJ
VR3403
DARK CLIP ADJ
VR3404
WHITE CLIP ADJ
VR3406
FM MODULATOR
IC3402 (AN6306)
S·VHS REC Y
IC3403 (VC2031DP)
SUB·EMPHASIS (REC)
SUB DE·EMPHASIS (P.B)
REC
P.B
S·VHS P.B Y IN
NOTE: Y: LUMINANCE SIG. C: CHROMINANCE SIG.
VR3401
SUB·EMPHASIS ADJ
REG.5V
LP(H)
EQ RF Y
S·VHS FM MODULATION
MHz
7.0
5.4
1.6MHz DEVIATION
WHITE LEVEL
SYNC TIP
Q3201~Q3208
SUPER LIMITER
C3108, L3102
CHROMA TRAP
FOR COMPENSATING THE OVER MODULATION OF LUMINANCE SIG.
QR3115
1MHz TRAP
L3118, C3145
COMPOSITE (H)
S·VHS (H)
QR3111
SP(H)
S·VHS
VHS
Q3111 Q3114 QR3106
VR3102
SP·Q ADJ
S·VHS (H)
REG.5V
QR3101
PLAY(H)
CHROMA TRAP
C3124 L3111
S·VHS (H)
P3101
S·VHS CASSETTE IN SW (ID HOLD DETECTOR)
(S·VHS MODE:ON)
Q3118
S·VHS(L)
INVERTER
S·VHS DETECTION CIR
IC3101 (VCR0185)
AUTO (S·VHS)
+B
S·VHS SELECT SW
P3403
P3402
MESECAM (H)
QR3107
DURING MESECAM MODE, RECORDING AND PLAYBACK WITH S·VHS ARE INHIBITED
REC Y IN
IC8302 (AN6367)
ACC
IC3903 (MN3802A)
1H DELAY CCD
CLOCK DRIVE
JB
1.2Vp-p S·VHS/VHS REC/PLAY(SP)
IC3902 (MN3802A)
FL3906
CARRIER TRAP
FL3904
CARRIER TRAP
JA
17.72MHz 2.2Vp-p
IC3901 (MN3106)
FREQ. MULTIPLIER (×4)
4.43MHz CLOCK
CCD PACK C.B.A. (VEP03542A)
S·VHS(H)/LINE(L)
IC3702 (M52055P)
LINE IN
S·VHS IN
EE(H)
EE
P.B
C3734, L3709
4.43MHz TRAP (NOTCH FILTER)
P3701
TP3761
IC3701 (AN3294K)
NON·CORRELATION SIG.
CORRELATION SIG.
(ADD)
R3714
C3711
L3704
REG. 5V
DL3701
COMB FILTER
ACC
4.43MHz PEAKING AMP
INTEGRATION CIRCUIT
RECTIFIER
NON·CORRELATION DETECTION
TO MATCH THE TIMING OF INPUT SIGNALS IN ADD, ONE INPUT SIGNAL IS DELAYED BEFORE THE ADD.
DELAY
FL3701
VR3707
VR3708
0.2Vp-p REC/PLAY(SP) VHS/S·VHS
TP3703
2H DELAY LEVEL ADJ
2H DELAY PHASE ADJ
VR3703
VR3704
CCD PHASE ADJ
CCD LEVEL ADJ
FILTER ON
OFF
NOTCH (H)
IC3702 (M52055P)
TRAP POINT
4.43MHz 5.0MHz
LUMINANCE/CHROMINANCE SEPARATION C.B.A. (VEP03541B)
JAMP VIDEO
IC3302 (TL8705P)
X3301
X'TAL OSC
CLOCK DRIVE
L.P.F.
CCD
SYNC. CLAMP
L3302, L3303, C3305, C3306, C3307
(0.5H DELAY LINE)
JAMP DELAY LEVEL
VR3302
IC3301 (μPC1517CA)
CLAMP
AGC VIDEO
JAMPING PULSE OUT (TO IC8201·12)
FF
1/2 COUNT DOWN
2fH VCO
PHASE COMPARATOR
TRAPEZOID GENERATOR
1/2 HORIZONTAL LINE CORRECTION SECTION
VIDEO SIGNAL
COLOUR BURST SIGNAL
PILOT BURST SIGNAL
(THE PILOT BURST SIG. IS USED TO DETECT COMPONENT INPUT OR COMPOSITE INPUT)
0.3Vp-p S·VHS/VHS PLAY(SP)
H·SYNC
S·VIDEO (H) (FROM INPUT SELECT SW)
4.43MHz CLOCK
IC8303 (BU3781F)
PILOT BURST SIGNAL OUT
RB1
CLOCK
PBG1
PHASE COMP.
(H) ....COMPOSITE SIG. (L) ....COMPONENT SIG.
IC3804 (LM393PS)
P3804
COMPOSITE (H)
THIS SIGNAL IS SUPPLIED TO L.P.F. WHICH COMPOSED THE L3118 AND C3145 ON FREQUENCY RESPONCE CONTROL CIRCUIT.
B.P.F EXTRACTS THE PILOT BURST SIGNAL FROM VIDEO SIGNAL.
Q8301, Q8302
B.P.F
4.43MHz B.P.F


S-VHS SECTION
5.5MHz
FL3401
5.5MHz L.P.F.
S-VHS DEVIATION ADJ
VR3403
+B
DARK CLIP ADJ
VR3404
WHITE CLIP ADJ
VR3406
FM MODULATOR
IC3402 (AN6306)
IC3403 (VC2031DP)
SUB-EMPHASIS (REC)
SUB DE-EMPHASIS (P.B)
REC
P.B
VR3401
SUB-EMPHASIS ADJ
REG.5V
LP(H)
S-VHS REC Y
S-VHS P.B Y IN
EQ RF Y
S-VHS FM MODULATION
MHz
7.0
5.4
1.6MHz DEVIATION
WHITE LEVEL
SYNC TIP
SHG(H)
S-VHS
VHS
Q3101~Q3103
VHS REC CURR ADJ
VR3104
Q3201~Q3208
SUPER LIMITTER
C3108, L3102
CHROMA TRAP
Q3104~Q3108
FREQUENCY RESPONCE CONTROL
VR3101
FREQ. RESP ADJ
1MHz TRAP
L3118, C3145
QR3115
COMPOSITE(H)
S-VHS(H)
Q3111 Q3114 QR3106
QR3111
SP(H)
VR3102
SP-Q ADJ
QR3112
LP(H)
VR3103
LP-Q ADJ
LUMINANCE PB Q CONTROL
Q3112, Q3113 C3122, L3109
S-VHS(H)
REG.5V
QR3101
PLAY(H)
CHROMA TRAP
C3124 L3111
S-VHS(H)
P3101 3
S-VHS CASSETTE IN SW (ID HOLD DETECTOR)
Q3118
(S-VHS MODE:ON)
QR3107
P3403 3
P3402 3
MESECAM(H)
P3101 2
AUTO (S-VHS)
VHS
+B
S-VHS SELECT SW
INVERTER
INTEGRATION CIRCUIT
3.8MHz PEAKING AMP
FOR S-VHS DET.
PB
(S-VHS DETECTION CIRCUIT)
IC3101 (VCR0185)
FL3101
REG.5V
R3119
P502 4
P502 2
REC-C
REC-Y
VR502
VR501
IC501 (AN3224K)
CURRENT EMPH(L)
LP(H)
MIX
AMP
CURR AMP
SW
IC502 (AN3311S)
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
P501 2
P501 8
P501 7
P501 1
P501 5
HEAD AMP OUTPUT
RF SIGNAL
120mVp-p
Q501
AMP
PHASE COMPESATOR
VHS
S-VHS
627K 3.8M 4.8M Hz
627K 5.4M 7.0M Hz
TP504
TP503
IC501 (AN3224K)
(REC:ON)
EXCEPT REC(H)
P002 4
P002 5
P002 6
P002 3
P002 2
P002 1
VIDEO HEAD L'
VIDEO HEAD R'
VIDEO HEAD R
VIDEO HEAD L
620±5μm
R (35μm)
L' (49μm)
R' (49μm)
L (35μm)
FROM SERVO
P501 1
HEAD SW
TO SERVO
P501 8
ENVE SELECT
FROM SERVO
P501 2
HEAD AMP SW
HEAD AMP C.B.A. (VEP05111B)
a
b
c
d
e
f
g
h
REC Y IN
IC8302 (AN5367)
ACC
VIDEO SIGNAL
COLOUR BURST SIGNAL
PILOT BURST SIGNAL
IC8301 (M52055P)
SW 1
(a)
(b)
4.43MHz
FL8301
4.43MHz B.P.F.
C8313
2.2Vp-p
S-VHS/VHS REC/PLAY (SP)
IC8303 (BU3781F)
H-SYNC
PILOT BURST SIGNAL OUT
PILOT BURST PHASE ADJ
S-VIDEO(H) (FROM INPUT SELECT SW)
RB1
4.43MHz CLOCK
CLOCK
PBG1
PHASE COMP.
0.3Vp-p
S-VHS/VHS PLAY(SP)
(H)......COMPOSITE SIG.
(L)......COMPONENT SIG.
IC3804 (LM393PS)
P3804 2
COMPOSITE(H)
REG.
SW 2
SW 3
(PILOT BURST SIGNAL CANCELLING CAPACITOR)
C8311
Q8301, Q8302
B.P.F
IC8301 (M52055P)
PB CHROMA
INC. AMP
IC3301 (μPC1517CA)
AGC VIDEO
2fH VCO
PHASE COMPARATOR
TRAPEZOID GENERATOR
LINE CORRECTION SECTION
×2(H)
REV(H)
STILL/SLOW(L)
LP(H)
MODE CONTROL CIRCUIT
QR8201 IC8202 QR8203
CHROMA DELAY LEVEL
VR8201
DL8201
1H DELAY LINE
IC8201 (AN3594K)
CTL(B)
CTL(A)
MODE SELECT
0.5H DELAY LEVEL
DL8202
0.5H DELAY LINE
VR8202
INVERTER
SW2
SW1
SW6
1/4 JAMPING PULSE
1/2
IC8203 (AN6308)
(INV)
SW3
CHATERING PROTECTION CIRCUIT
INVERTER
SW4
1/2
1/2 JAMPING PULSE
SW 5
INVERTER
JAMPING PULSE IN (FROM IC3301-20)
PB CHROMA ADJ
VR8203
P.B CHROMA IN
H. AMP. SW PULSE (25Hz)
COLOUR CORRECTION SECTION
i
j

SINCE THE LOW CONVERTED CHROMINANCE SIGNAL CONTAINS SOME LUMINANCE COMPONENT, THERE ISN'T CARRIER INTERLEAVE. THE LEAKAGE LUMINANCE MAY CAUSE A DOT INTERFERENCE. TO ELIMINATE THIS LUMINANCE COMPONENT, THIS FILTER IS USED WHEN PLAYING BACK THE COMPOSITE VIDEO SIGNAL.

FOR COMPENSATING THE OVER MODULATION OF LUMINANCE SIG.

NOTE:
Y:LUMINANCE SIG.
C:CHROMINANCE SIG.

DURING MESECAM MODE: RECORDING AND PLAYBACK WITH S-VHS ARE INHIBITED

DURING VHS MODE, THIS SWITCH IS COMPELLED TO TURN TO (a) SIDE.

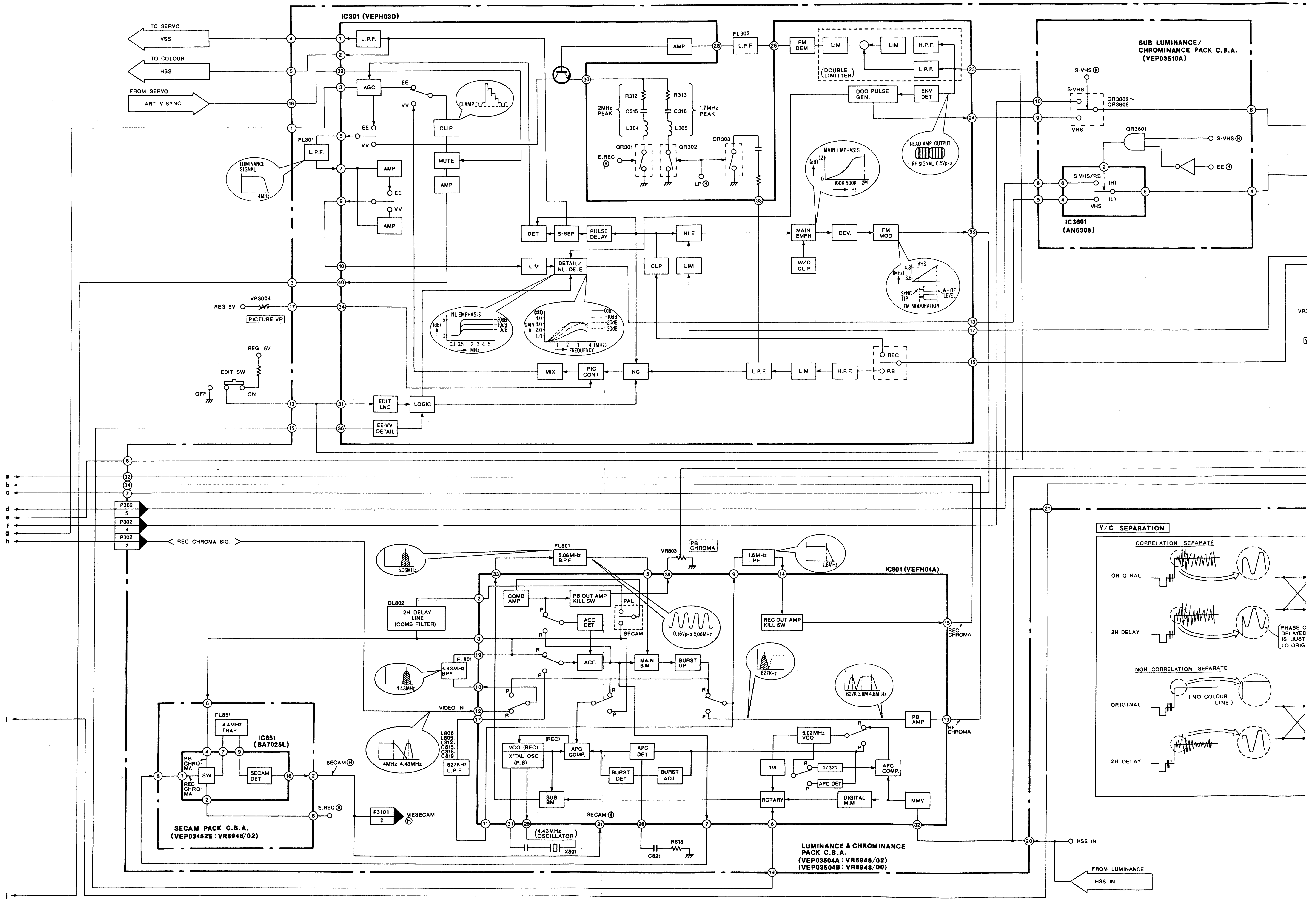
(THE PILOT BURST SIG. IS USED TO DETECT COMPONENT INPUT OR COMPOSITE INPUT)

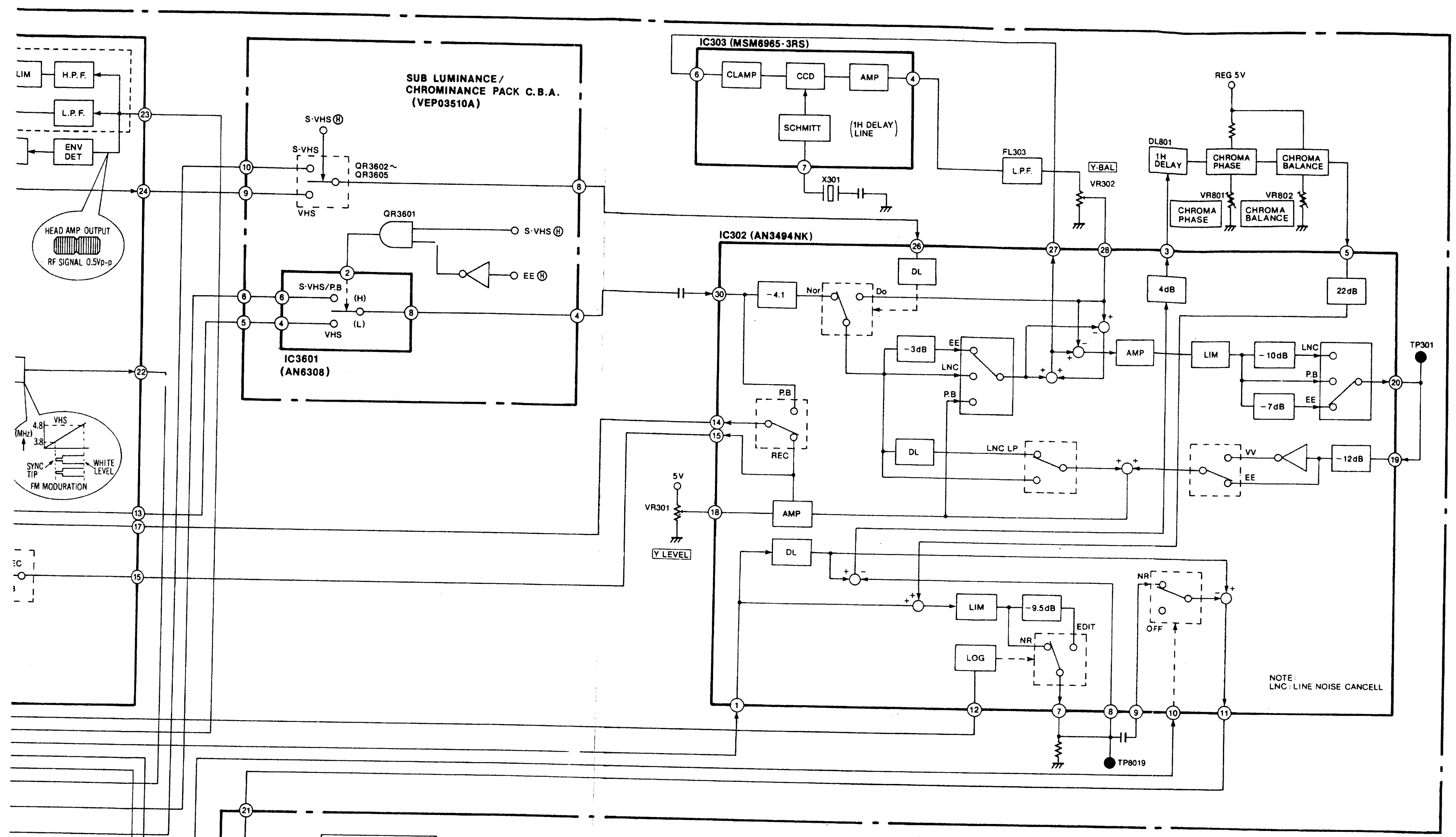
THIS SIGNAL IS SUPPLIED TO L.P.F. WHICH COMPOSED THE L3118 AND C3145 ON FREQUENCY RESPONCE CONTROL CIRCUIT.

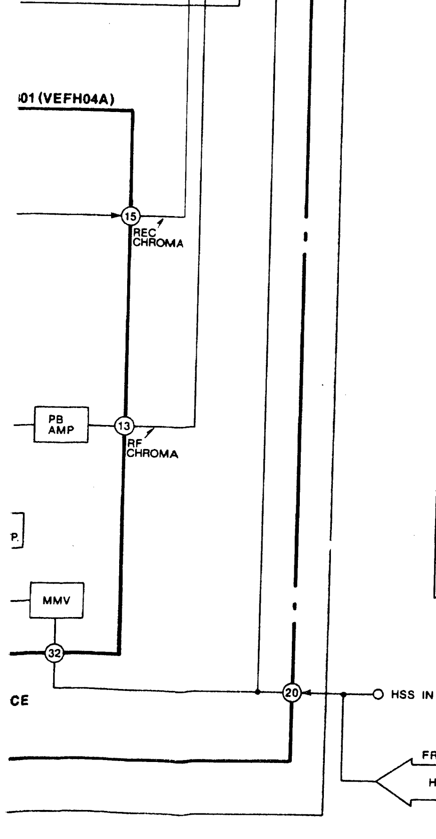
B.P.F EXTRACTS THE PILOT BURST SIGNAL FROM VIDEO SIGNAL.

CTL(B) \ CTL(A)	L	M	H
L	SP	SP	SP
M	LP-NOR.	LP-CUE	LP-REV
H	LP-STILL	——	——

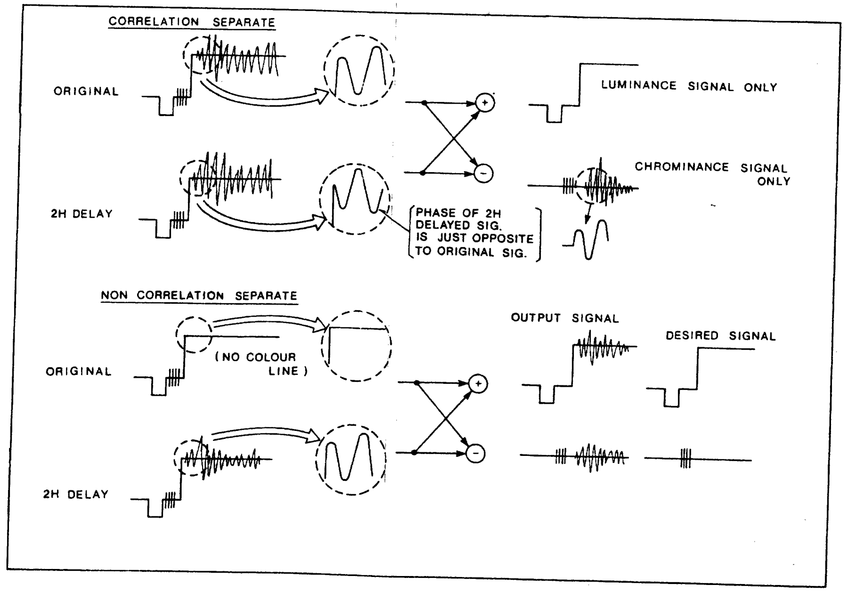
NOTE:
THE COLOUR SIGNAL IS MUTED DURING DOUBLE SPEED(×2) IN LP MODE.


IC301 (VEPH03D)
TO SERVO
VSS
TO COLOUR
HSS
FROM SERVO
ART V SYNC
L.P.F.
AGC
EE
VV
CLAMP
CLIP
MUTE
AMP
FL301
LUMINANCE SIGNAL
4MHz
DET
S-SEP
PULSE DELAY
NLE
LIM
DETAIL/ NL. DE. E
CLP
NL EMPHASIS
(dB)
MHz
20dB
10dB
0dB
GAIN
(MHz)
FREQUENCY
-30dB
REG 5V
VR3004
PICTURE VR
EDIT SW
OFF
ON
MIX
PIC CONT
NC
EDIT LNC
LOGIC
EE·VV DETAIL
FL302
FM DEM
(DOUBLE LIMITTER)
H.P.F.
DOC PULSE GEN.
ENV DET
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
R312
R313
2MHz PEAK
C315
C316
1.7MHz PEAK
L304
L305
QR301
QR302
QR303
E.REC Ⓗ
LP Ⓗ
MAIN EMPHASIS
100K 500K 2M
Hz
MAIN EMPH
DEV.
FM MOD
W/D CLIP
VHS
SYNC TIP
WHITE LEVEL
FM MODURATION
REC
P.B
SUB LUMINANCE/ CHROMINANCE PACK C.B.A. (VEP03510A)
S-VHS Ⓗ
S-VHS
QR3602~ QR3605
QR3601
EE Ⓗ
S-VHS/P.B
(H)
(L)
IC3601 (AN6308)
a
b
c
d
e
f
g
h
i
j
P302
REC CHROMA SIG.
FL801
5.06MHz B.P.F.
5.06MHz
VR803
PB CHROMA
1.6MHz L.P.F.
1.6MHz
IC801 (VEFH04A)
DL802
2H DELAY LINE (COMB FILTER)
COMB AMP
PB OUT AMP KILL SW
PAL
SECAM
ACC DET
ACC
MAIN B.M
BURST UP
0.16Vp-p 5.06MHz
REC OUT AMP KILL SW
REC CHROMA
4.43MHz BPF
4.43MHz
627KHz
627K 3.8M 4.8M Hz
VIDEO IN
PB AMP
RF CHROMA
4MHz 4.43MHz
L806 L809 L812 C815 C818 C819
627KHz L.P.F.
VCO (REC)
X'TAL OSC (P.B)
APC COMP.
APC DET
BURST DET
BURST ADJ
SUB BM
5.02MHz VCO
1/8
1/321
AFC DET
AFC COMP.
ROTARY
DIGITAL M.M
MMV
(4.43MHz OSCILLATOR)
X801
R818
C821
SECAM Ⓗ
FL851
4.4MHz TRAP
IC851 (BA7025L)
P.B CHROMA
REC CHROMA
SW
SECAM DET
SECAM PACK C.B.A. (VEP03452E : VR6948/02)
E.REC Ⓗ
P3101
MESECAM Ⓗ
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03504A : VR6948/02) (VEP03504B : VR6948/00)
HSS IN
FROM LUMINANCE
Y/C SEPARATION
CORRELATION SEPARATE
ORIGINAL
2H DELAY
PHASE C DELAYED IS JUST TO ORIG
NON CORRELATION SEPARATE
(NO COLOUR LINE)

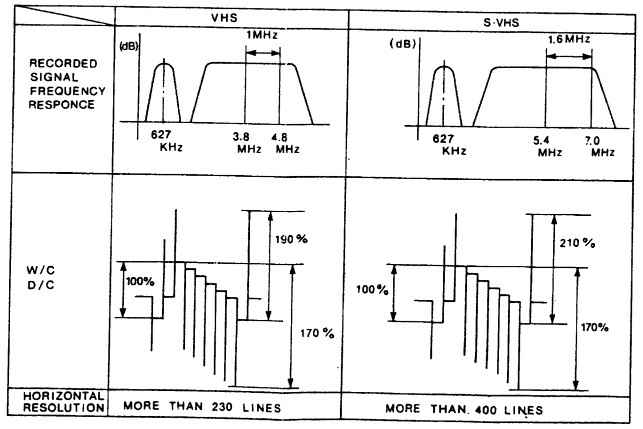

LIM
H.P.F.
L.P.F.
ENV DET
23
24
22
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
VHS
(MHz)
4.8
3.8
SYNC TIP
WHITE LEVEL
FM MODURATION
13
17
16
SUB LUMINANCE/
CHROMINANCE PACK C.B.A.
(VEP03510A)
S-VHS Ⓗ
S-VHS
QR3602~
QR3605
VHS
10
9
8
QR3601
S-VHS Ⓗ
EE Ⓗ
S-VHS/P.B
(H)
(L)
VHS
6
5
4
2
IC3601
(AN6308)
IC303 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
7
X301
FL303
L.P.F.
Y-BAL
VR302
REG 5V
DL801
1H DELAY
CHROMA PHASE
CHROMA BALANCE
VR801
VR802
CHROMA PHASE
CHROMA BALANCE
IC302 (AN3494NK)
26
27
28
3
5
DL
4dB
22dB
30
-4.1
Nor
Do
-3dB
EE
LNC
P.B
AMP
LIM
-10dB
LNC
P.B
-7dB
EE
20
TP301
14
15
P.B
REC
DL
LNC LP
VV
EE
-12dB
19
5V
VR301
18
AMP
Y LEVEL
DL
LIM
-9.5dB
EDIT
NR
LOG
NR
OFF
NOTE:
LNC: LINE NOISE CANCELL
1
12
7
8
9
10
11
TP8019
21


01 (VEFH04A)
15
REC CHROMA
PB AMP
13
RF CHROMA
MMV
32
CE
20
HSS IN
FROM LUMINANCE
HSS IN

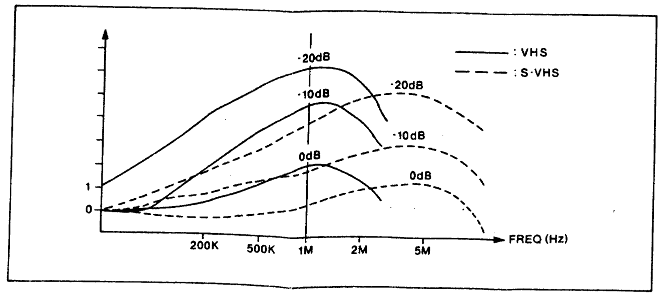
Y/C SEPARATION

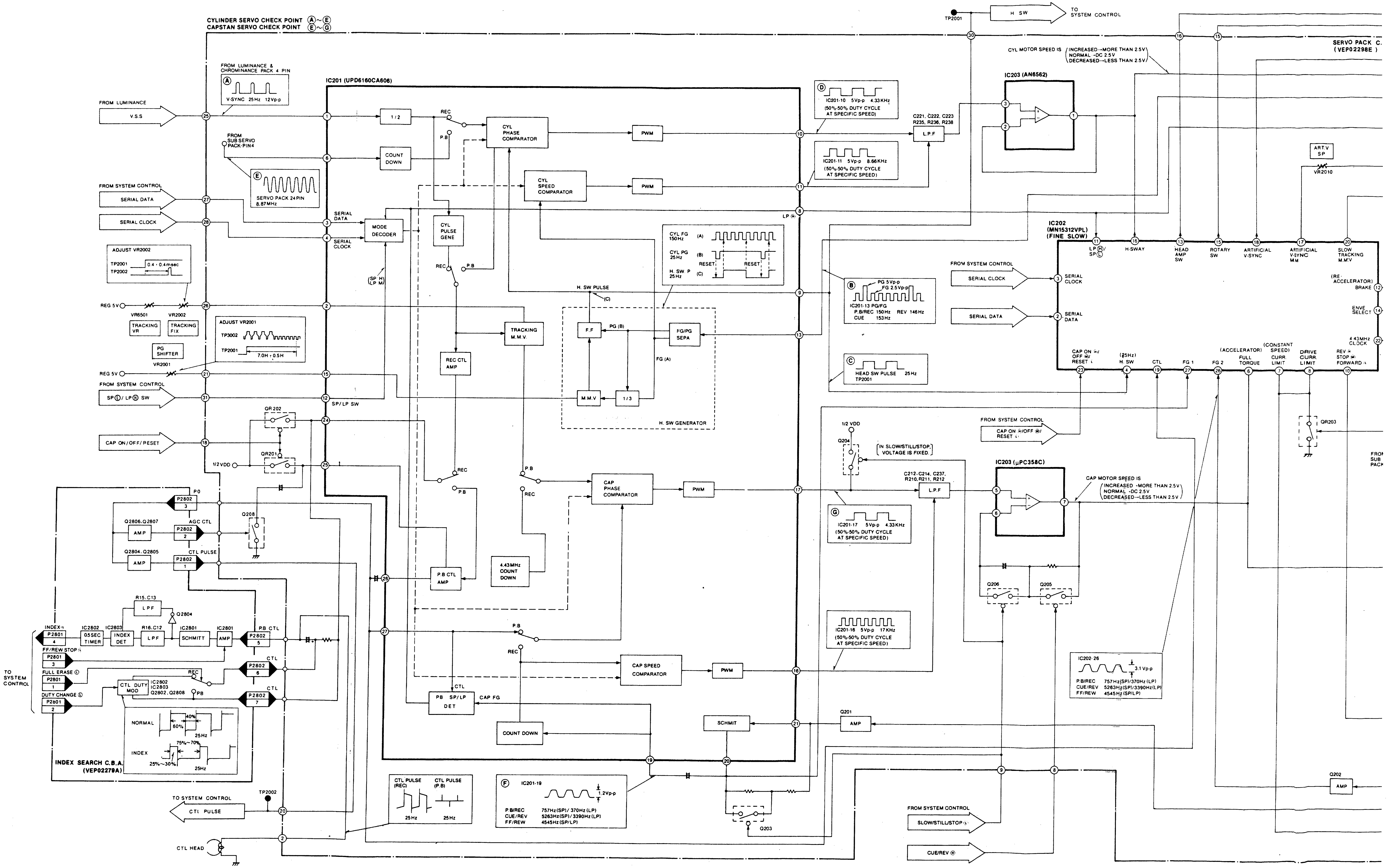

CORRELATION SEPARATE
ORIGINAL
LUMINANCE SIGNAL ONLY
2H DELAY
CHROMINANCE SIGNAL ONLY
PHASE OF 2H DELAYED SIG. IS JUST OPPOSITE TO ORIGINAL SIG.
NON CORRELATION SEPARATE
ORIGINAL
(NO COLOUR LINE)
OUTPUT SIGNAL
DESIRED SIGNAL
2H DELAY

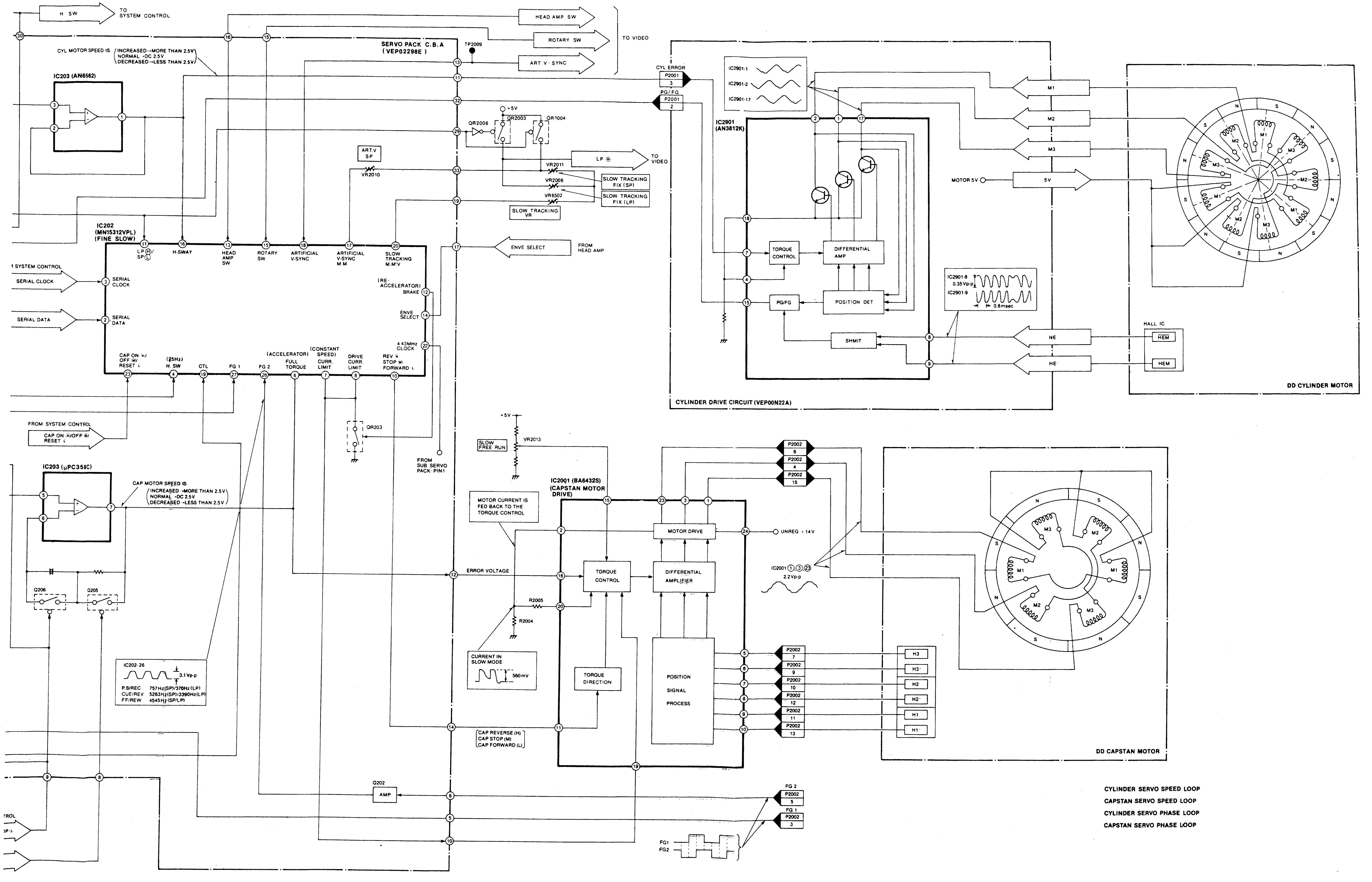
COMPARISON CHART

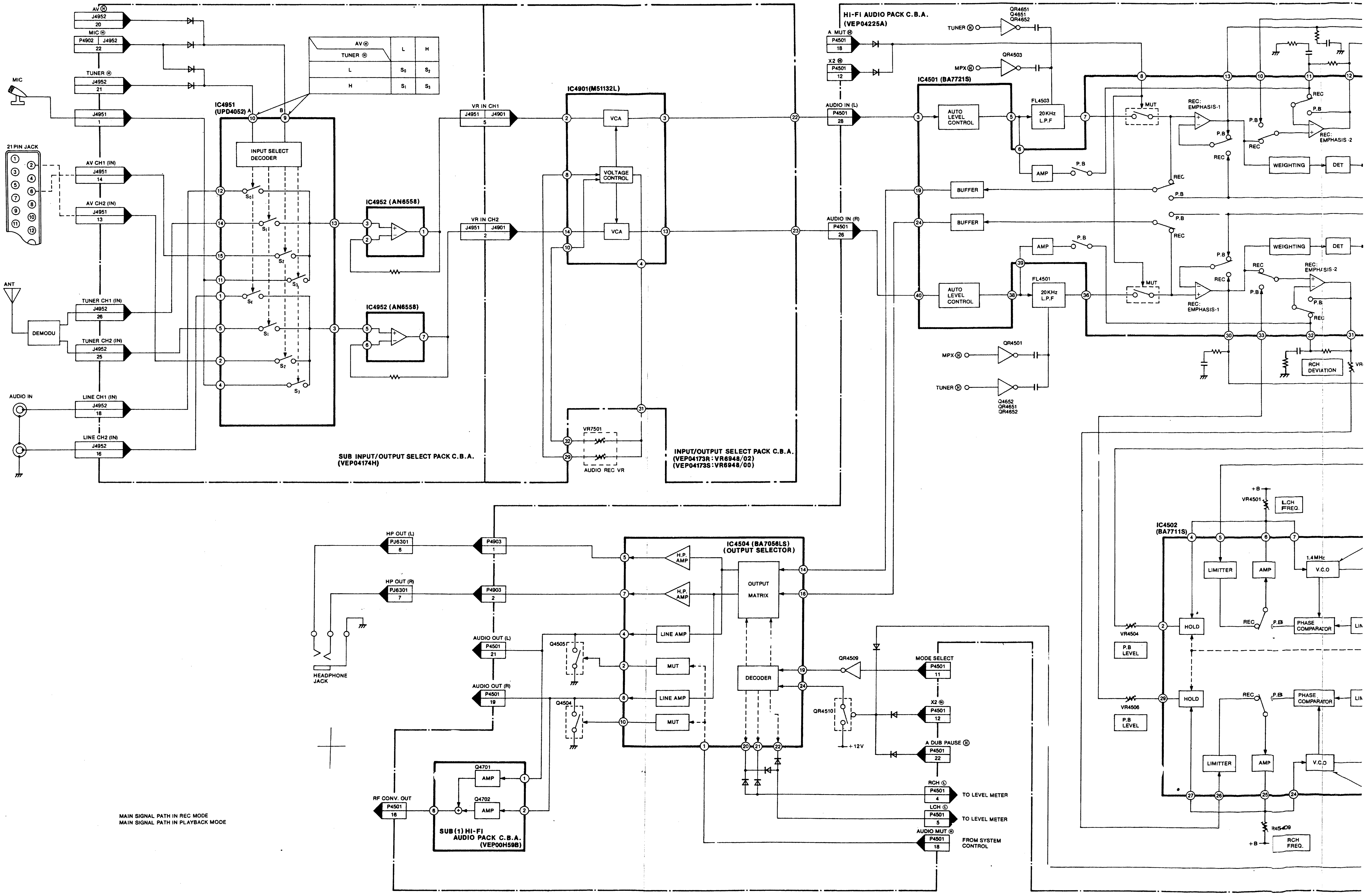


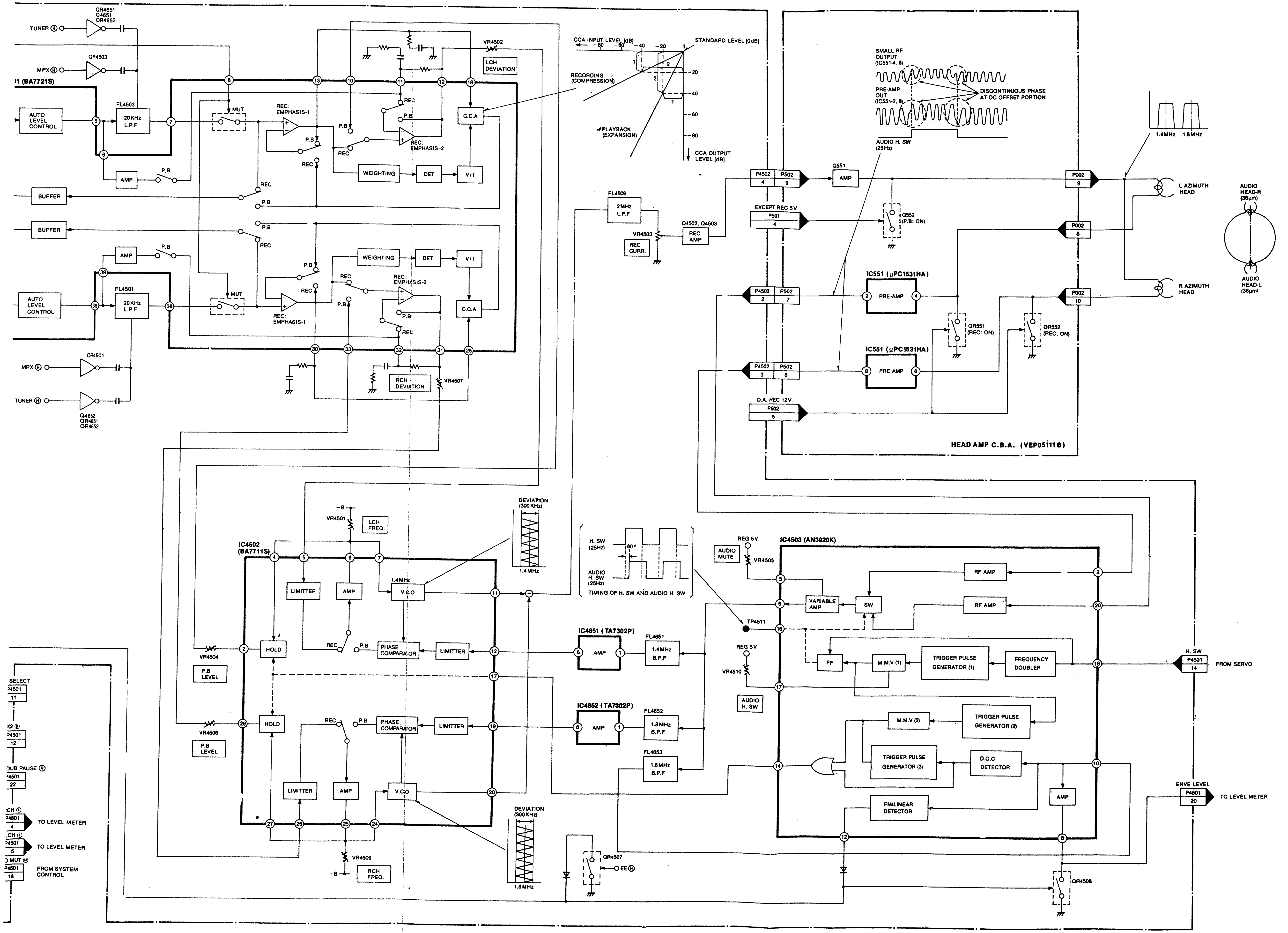
SUB EMPHASIS CHARACTERISTICS

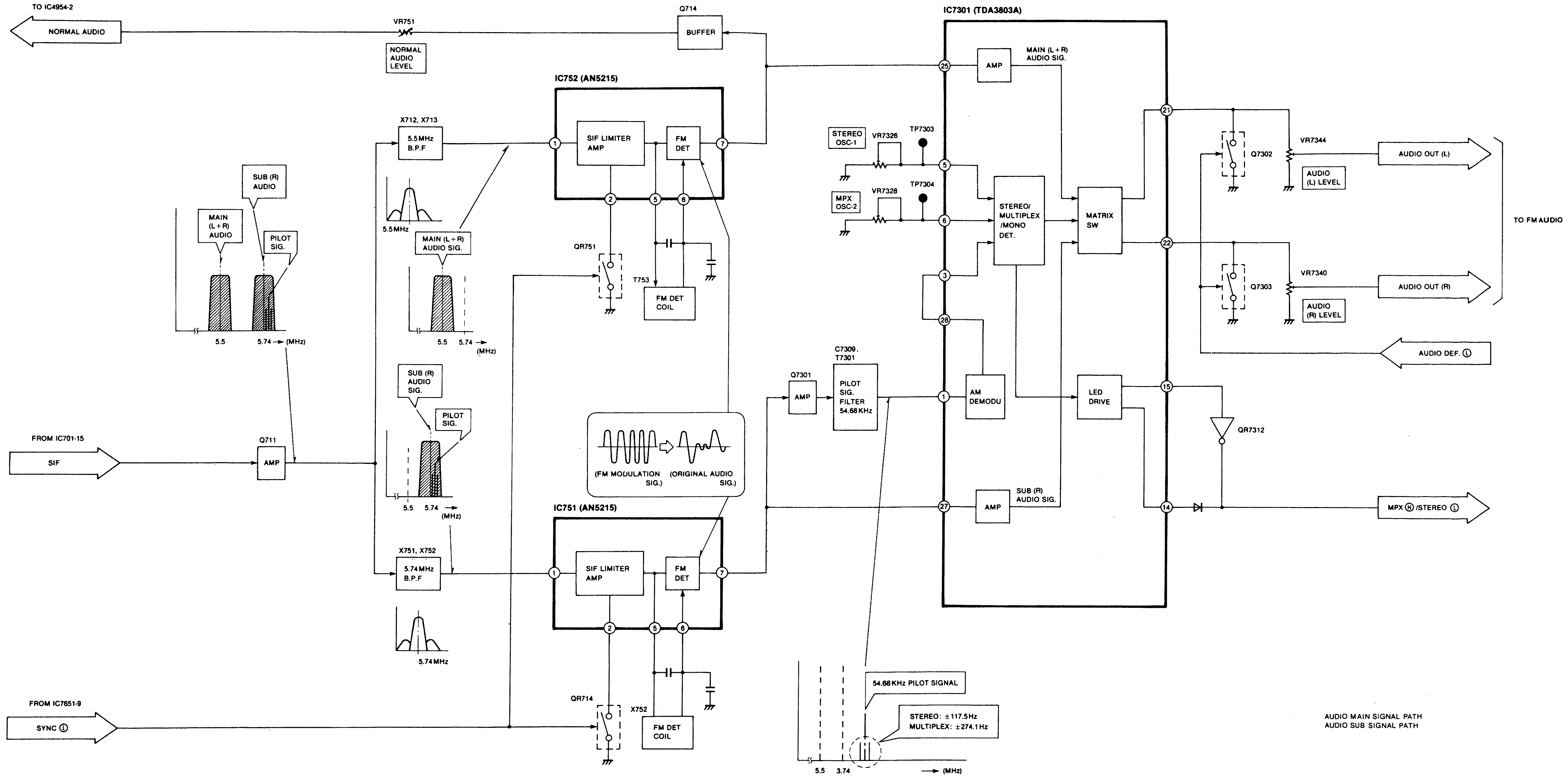


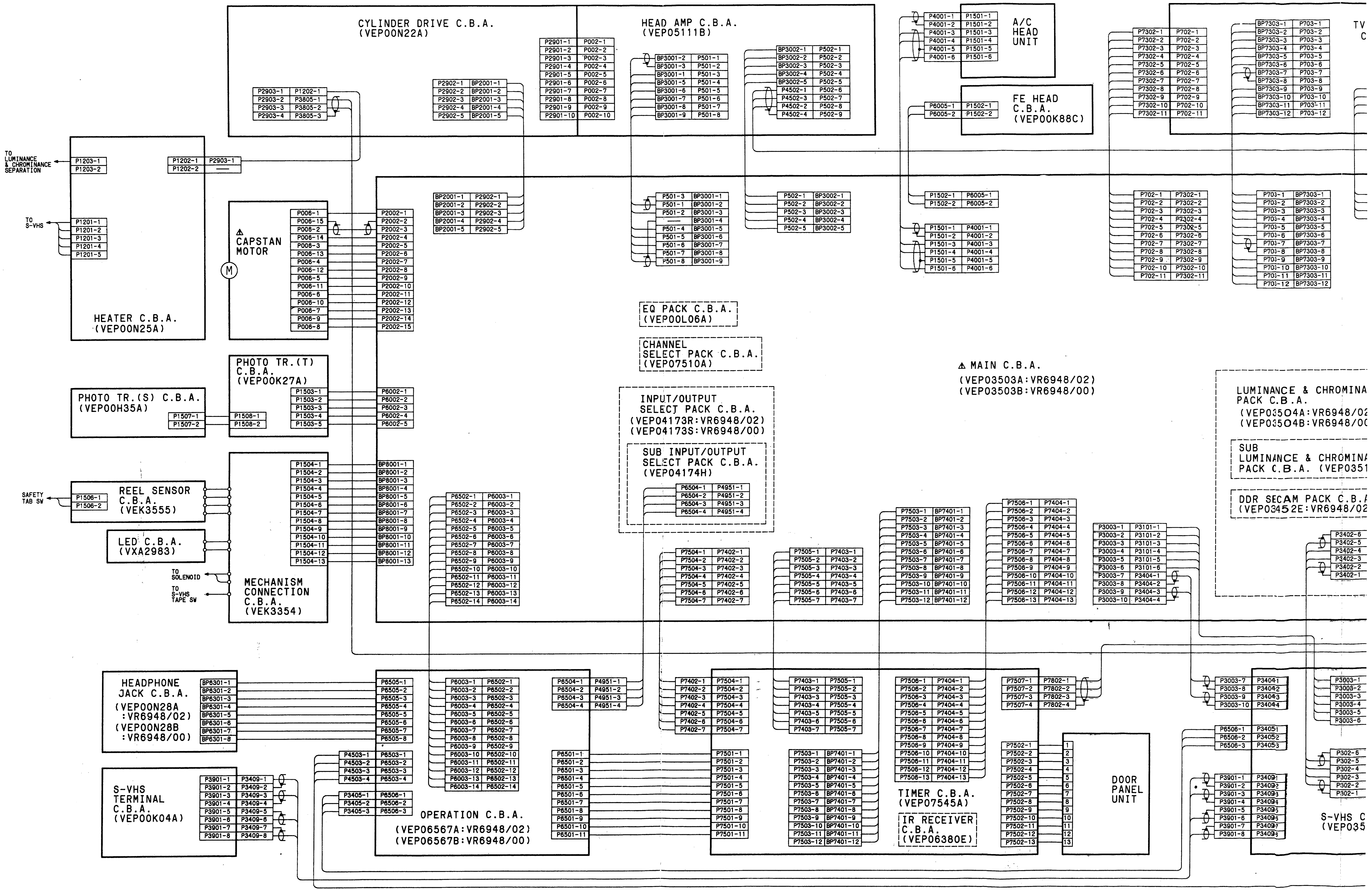

CYLINDER SERVO CHECK POINT Ⓐ~Ⓔ
CAPSTAN SERVO CHECK POINT Ⓔ~Ⓖ
TP2001
H SW
TO SYSTEM CONTROL
SERVO PACK C.
(VEP02298E)
CYL MOTOR SPEED IS (INCREASED→MORE THAN 2.5V, NORMAL →DC 2.5V, DECREASED→LESS THAN 2.5V)
IC203 (AN6562)
FROM LUMINANCE & CHROMINANCE PACK 4 PIN
Ⓐ V-SYNC 25Hz 12Vp-p
IC201 (UPD6160CA606)
FROM LUMINANCE
V.S.S
1/2
REC
P.B
CYL PHASE COMPARATOR
PWM
Ⓓ IC201-10 5Vp-p 4.33KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
C221, C222, C223 R235, R236, R238
L.P.F
FROM SUB SERVO PACK-PIN4
COUNT DOWN
Ⓔ SERVO PACK 24PIN 8.87MHz
CYL SPEED COMPARATOR
IC201-11 5Vp-p 8.66KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
ART.V SP
VR2010
FROM SYSTEM CONTROL
SERIAL DATA
SERIAL CLOCK
MODE DECODER
CYL PULSE GENE
LP Ⓗ
IC202 (MN15312VPL) (FINE SLOW)
LP Ⓗ/SP Ⓛ
H-SWAY
HEAD AMP SW
ROTARY SW
ARTIFICIAL V-SYNC
ARTIFICIAL V-SYNC M.M
SLOW TRACKING M.M.V
ADJUST VR2002
TP2001 0.4~0.4msec
TP2002
(SP H) (LP M)
CYL FG 150Hz (A)
CYL PG 25Hz (B)
H. SW P 25Hz (C)
RESET
H. SW PULSE
Ⓑ PG 5Vp-p FG 2.5Vp-p IC201-13 PG/FG P.B/REC 150Hz REV 146Hz CUE 153Hz
FROM SYSTEM CONTROL
SERIAL CLOCK
SERIAL DATA
(RE-ACCELERATOR) BRAKE
ENVE SELECT
4.43MHz CLOCK
REG 5V
VR6501
VR2002
TRACKING VR
TRACKING FIX
PG SHIFTER
VR2001
ADJUST VR2001
TP3002
TP2001 7.0H ± 0.5H
TRACKING M.M.V.
F.F
PG (B)
FG/PG SEPA
FG (A)
REC CTL AMP
M.M.V
1/3
H. SW GENERATOR
Ⓒ HEAD SW PULSE 25Hz TP2001
CAP ON Ⓗ/OFF Ⓜ/RESET Ⓛ
(25Hz) H. SW
CTL
FG 1
FG 2
(ACCELERATOR) FULL TORQUE
(CONSTANT SPEED) CURR. LIMIT
DRIVE CURR. LIMIT
REV Ⓗ STOP Ⓜ FORWARD Ⓛ
FROM SYSTEM CONTROL
SP Ⓛ/LP Ⓗ SW
SP/LP SW
QR202
QR203
CAP ON/OFF/RESET
QR201
1/2 VDD
Q204
[IN SLOW/STILL/STOP, VOLTAGE IS FIXED.]
FROM SYSTEM CONTROL CAP ON Ⓗ/OFF Ⓜ/RESET Ⓛ
IC203 (μPC358C)
CAP MOTOR SPEED IS (INCREASED →MORE THAN 2.5V, NORMAL →DC 2.5V, DECREASED→LESS THAN 2.5V)
FROM SUB PACK
P0
P2802
Q2806, Q2807
AMP
AGC CTL
Q208
Q2804, Q2805
CTL PULSE
CAP PHASE COMPARATOR
C212~C214, C237, R210, R211, R212
Ⓖ IC201-17 5Vp-p 4.33KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
4.43MHz COUNT DOWN
P.B CTL AMP
Q206
Q205
R15, C13
LPF
Q2804
INDEX Ⓛ
IC2802 05SEC TIMER
IC2803 INDEX DET
R16, C12
IC2801 SCHMITT
IC2801 AMP
PB CTL
P2801
IC201-16 5Vp-p 17KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC202-26 3.1Vp-p P.B/REC 757Hz(SP)/370Hz(LP) CUE/REV 5263Hz(SP)/3390Hz(LP) FF/REW 4545Hz(SP/LP)
FF/REW STOP Ⓛ
TO SYSTEM CONTROL
FULL ERASE Ⓛ
DUTY CHANGE Ⓛ
CTL DUTY MOD
IC2802 IC2803 Q2802, Q2808
CAP SPEED COMPARATOR
PB SP/LP DET
CAP FG
NORMAL 40% 60% 25Hz
INDEX 75%~70% 25%~30% 25Hz
INDEX SEARCH C.B.A. (VEP02279A)
COUNT DOWN
SCHMIT
Q201 AMP
Q202 AMP
TP2002
TO SYSTEM CONTROL
CTL PULSE
CTL PULSE (REC) 25Hz
CTL PULSE (P.B) 25Hz
Ⓕ IC201-19 1.2Vp-p P.B/REC 757Hz(SP)/370Hz(LP) CUE/REV 5263Hz(SP)/3390Hz(LP) FF/REW 4545Hz(SP/LP)
Q203
FROM SYSTEM CONTROL
SLOW/STILL/STOP Ⓛ
CUE/REV Ⓗ
CTL HEAD

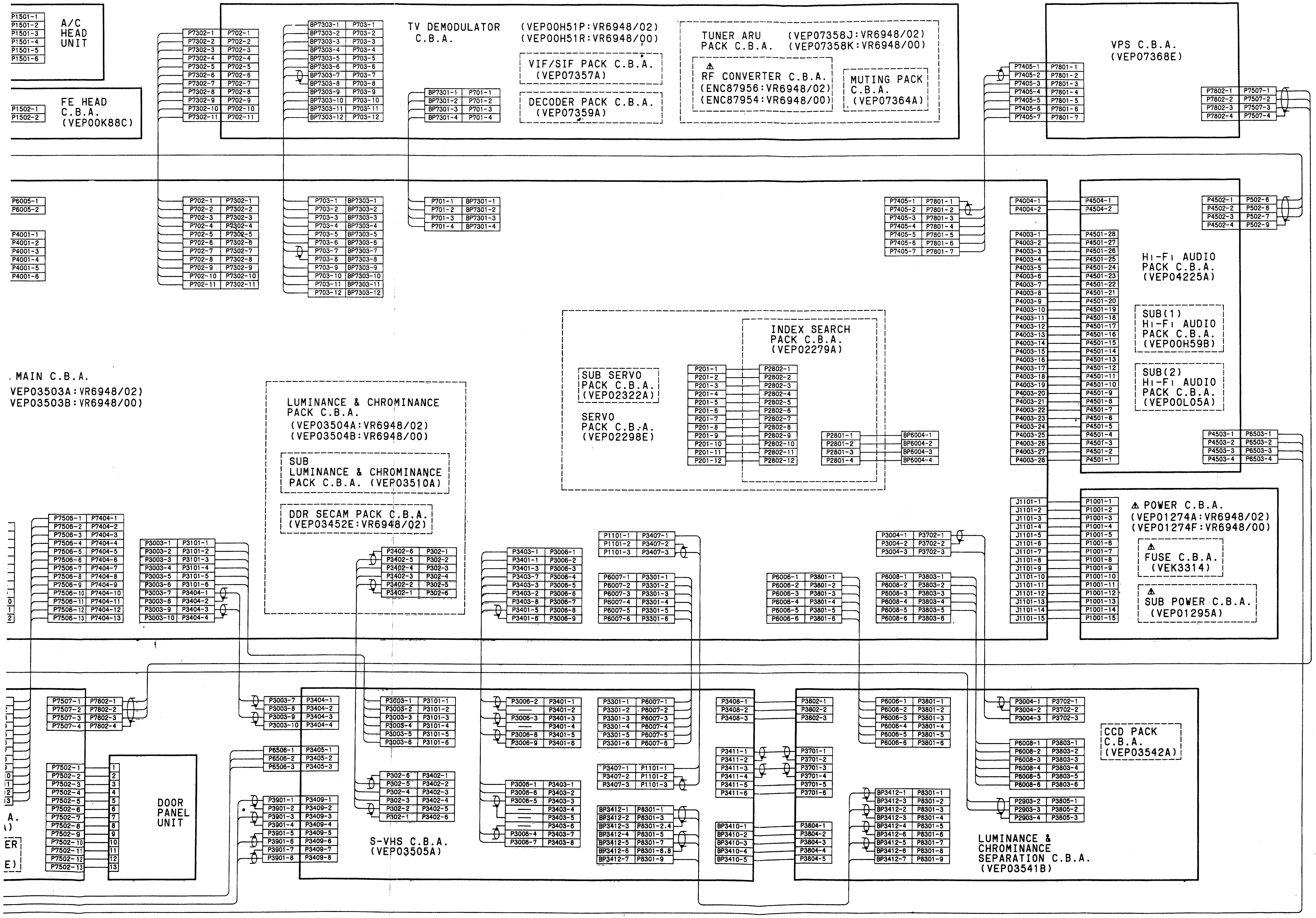

H SW
TO SYSTEM CONTROL
HEAD AMP SW
ROTARY SW
ART. V · SYNC
TO VIDEO
SERVO PACK C.B.A (VEP02298E)
TP2009
CYL MOTOR SPEED IS (INCREASED→MORE THAN 2.5V NORMAL -DC 2.5V DECREASED→LESS THAN 2.5V)
IC203 (AN6562)
QR2006
QR2003
QR2004
+5V
ART.V SP
VR2010
VR2011
VR2006
VR6502
LP Ⓗ
TO VIDEO
SLOW TRACKING FIX (SP)
SLOW TRACKING FIX (LP)
SLOW TRACKING VR
IC202 (MN15312VPL) (FINE SLOW)
LP Ⓗ/SP Ⓛ
H-SWAY
HEAD AMP SW
ROTARY SW
ARTIFICIAL V-SYNC
ARTIFICIAL V-SYNC M.M
SLOW TRACKING M.M'V
ENVE SELECT
FROM HEAD AMP
SYSTEM CONTROL
SERIAL CLOCK
SERIAL DATA
(RE-ACCELERATOR) BRAKE
ENVE SELECT
4.43MHz CLOCK
CAP ON Ⓗ/OFF Ⓜ/RESET Ⓛ
(25Hz) H. SW
CTL
FG 1
FG 2
(ACCELERATOR) FULL TORQUE
(CONSTANT SPEED) CURR. LIMIT
DRIVE CURR. LIMIT
REV Ⓗ STOP Ⓜ FORWARD Ⓛ
FROM SYSTEM CONTROL
CAP ON Ⓗ/OFF Ⓜ/RESET Ⓛ
QR203
FROM SUB SERVO PACK · PIN1
IC203 (μPC358C)
CAP MOTOR SPEED IS (INCREASED →MORE THAN 2.5V NORMAL -DC 2.5V DECREASED →LESS THAN 2.5V)
Q206
Q205
IC202-26
3.1 Vp-p
P.B/REC 757Hz(SP)/370Hz(LP)
CUE/REV 5263Hz(SP)/3390Hz(LP)
FF/REW 4545Hz(SP/LP)
Q202
AMP
CYL ERROR
P2001
PG/FG
IC2901-1
IC2901-2
IC2901-17
IC2901 (AN3812K)
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
SHMIT
IC2901-8 0.35Vp-p
IC2901-9
0.8msec
M1
M2
M3
MOTOR 5V
5V
HE
HE
HALL IC
HEM
CYLINDER DRIVE CIRCUIT (VEP00N22A)
DD CYLINDER MOTOR
N
S
+5V
SLOW FREE RUN
VR2013
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
IC2001 (BA6432S) (CAPSTAN MOTOR DRIVE)
P2002
MOTOR DRIVE
UNREG +14V
ERROR VOLTAGE
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
IC2001 ①③㉓ 2.2Vp-p
R2005
R2004
CURRENT IN SLOW MODE
560mV
TORQUE DIRECTION
POSITION SIGNAL PROCESS
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
H3
H2
H1
DD CAPSTAN MOTOR
FG 2
FG 1
FG1
FG2
CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP

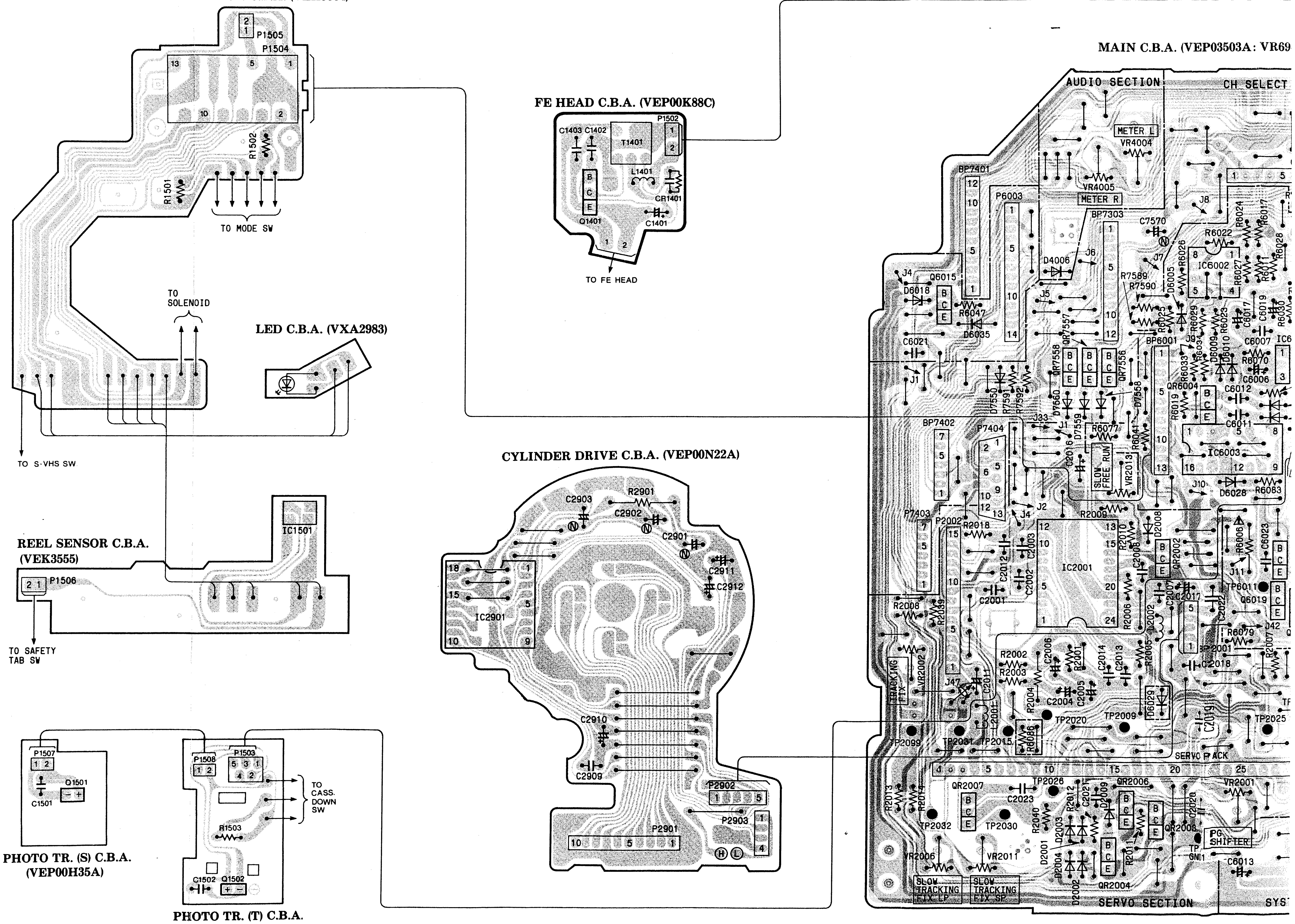

AV Ⓗ
J4952 20
MIC Ⓗ
P4902 J4952 22
TUNER Ⓗ
J4952 21
MIC
J4951 1
21 PIN JACK
AV CH1 (IN)
J4951 14
AV CH2 (IN)
J4951 13
ANT
DEMODU
TUNER CH1 (IN)
J4952 26
TUNER CH2 (IN)
J4952 25
AUDIO IN
LINE CH1 (IN)
J4952 18
LINE CH2 (IN)
J4952 16
IC4951 (UPD4052)
INPUT SELECT DECODER
AV Ⓗ
TUNER Ⓗ
L
H
S0 S2
S1 S3
IC4952 (AN6558)
SUB INPUT/OUTPUT SELECT PACK C.B.A. (VEP04174H)
VR IN CH1
J4951 J4901 5
VR IN CH2
J4951 J4901 2
IC4901(M51132L)
VCA
VOLTAGE CONTROL
VR7501
AUDIO REC VR
INPUT/OUTPUT SELECT PACK C.B.A. (VEP04173R : VR6948/02) (VEP04173S : VR6948/00)
HI-FI AUDIO PACK C.B.A. (VEP04225A)
A MUT Ⓗ
P4501 18
X2 Ⓗ
P4501 12
AUDIO IN (L)
P4501 28
AUDIO IN (R)
P4501 26
TUNER Ⓗ
MPX Ⓗ
QR4651 Q4651 QR4652
QR4503
QR4501
Q4652 QR4651 QR4652
IC4501 (BA7721S)
AUTO LEVEL CONTROL
FL4503
FL4501
20KHz L.P.F
AMP
BUFFER
MUT
REC: EMPHASIS-1
REC: EMPHASIS-2
P.B
REC
WEIGHTING
DET
RCH DEVIATION
VR4501
LCH FREQ.
IC4502 (BA7711S)
LIMITER
AMP
1.4MHz
V.C.O
PHASE COMPARATOR
HOLD
VR4504
VR4506
P.B LEVEL
R4509
RCH FREQ.
+B
HP OUT (L)
PJ6301 8
HP OUT (R)
PJ6301 7
P4903 3
P4903 2
HEADPHONE JACK
IC4504 (BA7056LS) (OUTPUT SELECTOR)
H.P. AMP
OUTPUT MATRIX
LINE AMP
MUT
DECODER
AUDIO OUT (L)
P4501 21
AUDIO OUT (R)
P4501 19
Q4505
Q4504
QR4509
QR4510
+12V
MODE SELECT
P4501 11
X2 Ⓗ
P4501 12
A DUB PAUSE Ⓗ
P4501 22
RCH Ⓛ
P4501 4
TO LEVEL METER
LCH Ⓛ
P4501 5
TO LEVEL METER
AUDIO MUT Ⓗ
P4501 18
FROM SYSTEM CONTROL
RF CONV. OUT
P4501 16
Q4701
Q4702
AMP
SUB (1) HI-FI AUDIO PACK C.B.A. (VEP00H59B)
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE


TUNER Ⓗ
QR4651
Q4651
QR4652
MPX Ⓗ
QR4503
(BA7721S)
AUTO LEVEL CONTROL
FL4503
20KHz L.P.F
MUT
REC: EMPHASIS-1
REC: EMPHASIS-2
P.B
REC
AMP
BUFFER
WEIGHTING
DET
V/I
C.C.A
VR4502
LCH DEVIATION
FL4501
QR4501
Q4652
QR4651
QR4652
RCH DEVIATION
VR4507
CCA INPUT LEVEL [dB]
STANDARD LEVEL [0dB]
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL [dB]
-80
-60
-40
-20
0
FL4506
2MHz L.P.F
VR4503
REC CURR.
Q4502, Q4503
REC AMP
P4502
P502
EXCEPT REC 5V
P501
D.A. REC 12V
Q551
SMALL RF OUTPUT (IC551-4, 6)
PRE-AMP OUT (IC551-2, 8)
DISCONTINUOUS PHASE AT DC OFFSET PORTION
AUDIO H. SW (25Hz)
Q552 (P.B: ON)
IC551 (μPC1531HA)
PRE-AMP
QR551 (REC: ON)
QR552 (REC: ON)
P002
1.4MHz
1.8MHz
L AZIMUTH HEAD
R AZIMUTH HEAD
AUDIO HEAD-R (36μm)
AUDIO HEAD-L (36μm)
HEAD AMP C.B.A. (VEP05111B)
DEVIATION (300KHz)
+B
VR4501
LCH FREQ.
IC4502 (BA7711S)
LIMITTER
AMP
V.C.O
1.4MHz
HOLD
PHASE COMPARATOR
LIMITTER
VR4504
P.B LEVEL
VR4506
VR4509
RCH FREQ.
H. SW (25Hz)
60°
AUDIO H. SW (25Hz)
TIMING OF H. SW AND AUDIO H. SW
IC4651 (TA7302P)
FL4651
1.4MHz B.P.F
IC4652 (TA7302P)
FL4652
1.8MHz B.P.F
FL4653
1.6MHz B.P.F
REG 5V
AUDIO MUTE
VR4505
IC4503 (AN3920K)
VARIABLE AMP
SW
RF AMP
TP4511
VR4510
AUDIO H. SW
FF
M.M.V (1)
TRIGGER PULSE GENERATOR (1)
FREQUENCY DOUBLER
M.M.V (2)
TRIGGER PULSE GENERATOR (2)
TRIGGER PULSE GENERATOR (3)
D.O.C DETECTOR
FM/LINEAR DETECTOR
QR4507
EE Ⓗ
QR4506
H. SW
P4501
FROM SERVO
ENVE LEVEL
TO LEVEL METER
SELECT
DUB PAUSE Ⓗ
CH Ⓛ
MUT Ⓗ
FROM SYSTEM CONTROL

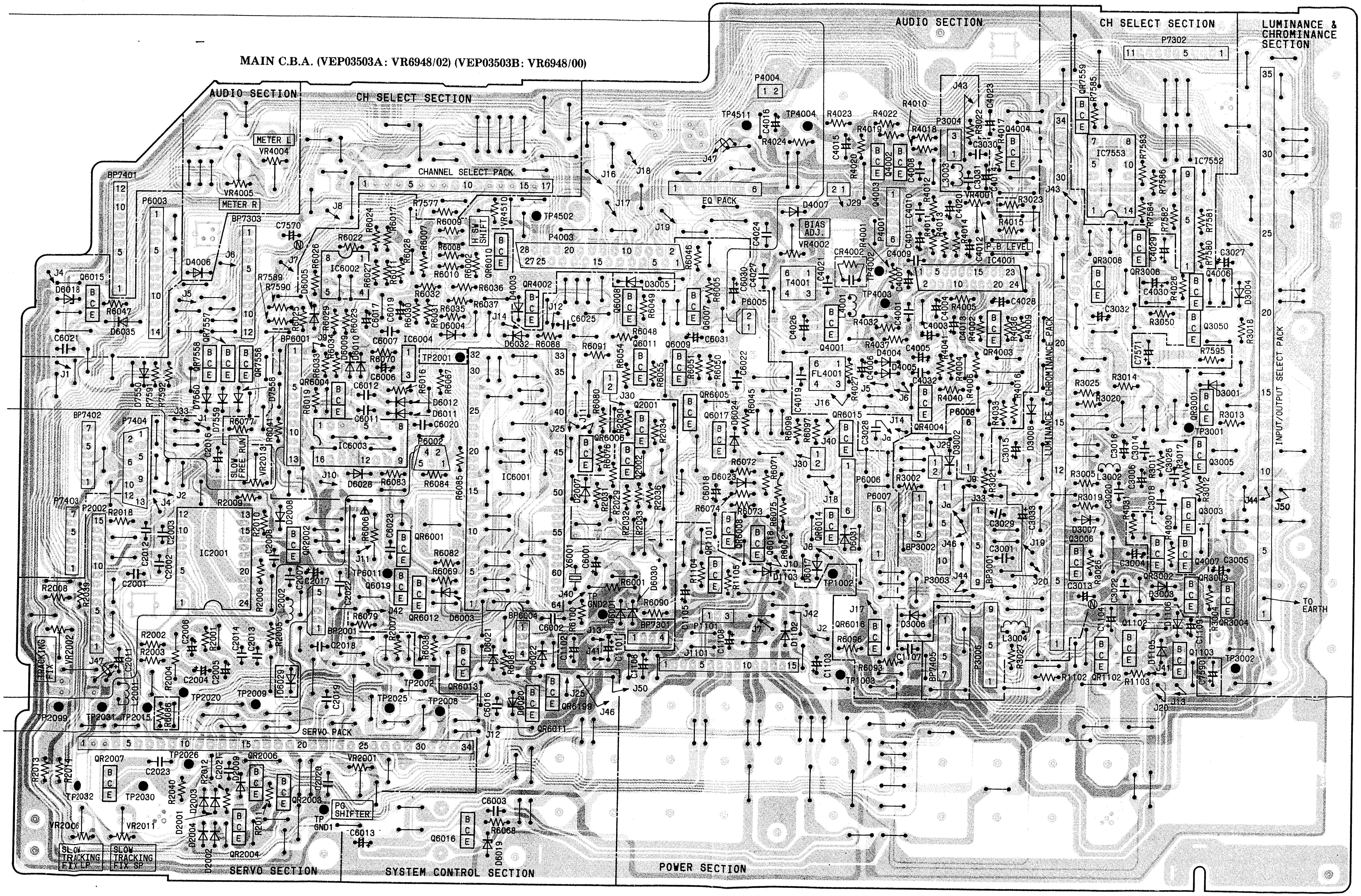

TO IC4954-2
NORMAL AUDIO
VR751
NORMAL AUDIO LEVEL
Q714
BUFFER
IC752 (AN5215)
X712, X713
5.5MHz B.P.F
SIF LIMITER AMP
FM DET
5.5MHz
MAIN (L+R) AUDIO SIG.
QR751
T753
FM DET COIL
SUB (R) AUDIO
MAIN (L+R) AUDIO
PILOT SIG.
5.5
5.74 → (MHz)
5.5 5.74 → (MHz)
SUB (R) AUDIO SIG.
PILOT SIG.
FROM IC701-15
SIF
Q711
AMP
5.5 5.74 → (MHz)
(FM MODULATION SIG.)
(ORIGINAL AUDIO SIG.)
IC751 (AN5215)
X751, X752
5.74MHz B.P.F
SIF LIMITER AMP
FM DET
5.74MHz
FROM IC7651-9
SYNC Ⓛ
QR714
X752
FM DET COIL
IC7301 (TDA3803A)
AMP
MAIN (L+R) AUDIO SIG.
STEREO OSC-1
VR7326
TP7303
MPX OSC-2
VR7328
TP7304
STEREO/ MULTIPLEX /MONO DET.
MATRIX SW
Q7302
VR7344
AUDIO OUT (L)
AUDIO (L) LEVEL
TO FM AUDIO
Q7303
VR7340
AUDIO OUT (R)
AUDIO (R) LEVEL
AUDIO DEF. Ⓛ
C7309, T7301
Q7301
AMP
PILOT SIG. FILTER 54.68KHz
AM DEMODU
LED DRIVE
QR7312
SUB (R) AUDIO SIG.
AMP
MPX Ⓗ /STEREO Ⓛ
54.68KHz PILOT SIGNAL
STEREO: ±117.5Hz
MULTIPLEX: ±274.1Hz
5.5 3.74 → (MHz)
AUDIO MAIN SIGNAL PATH
AUDIO SUB SIGNAL PATH


CYLINDER DRIVE C.B.A.
(VEP00N22A)
HEAD AMP C.B.A.
(VEP05111B)
A/C HEAD UNIT
FE HEAD C.B.A.
(VEP00K88C)
TO LUMINANCE & CHROMINANCE SEPARATION
TO S-VHS
HEATER C.B.A.
(VEP00N25A)
CAPSTAN MOTOR
M
PHOTO TR.(T) C.B.A.
(VEP00K27A)
PHOTO TR.(S) C.B.A.
(VEP00H35A)
SAFETY TAB SW
REEL SENSOR C.B.A.
(VEK3555)
LED C.B.A.
(VXA2983)
TO SOLENOID
TO S-VHS TAPE SW
MECHANISM CONNECTION C.B.A.
(VEK3354)
EQ PACK C.B.A.
(VEP00L06A)
CHANNEL SELECT PACK C.B.A.
(VEP07510A)
INPUT/OUTPUT SELECT PACK C.B.A.
(VEP04173R:VR6948/02)
(VEP04173S:VR6948/00)
SUB INPUT/OUTPUT SELECT PACK C.B.A.
(VEP04174H)
MAIN C.B.A.
(VEP03503A:VR6948/02)
(VEP03503B:VR6948/00)
LUMINANCE & CHROMINA
PACK C.B.A.
(VEP03504A:VR6948/02
(VEP03504B:VR6948/0
SUB LUMINANCE & CHROMIN
PACK C.B.A. (VEP035
DDR SECAM PACK C.B.
(VEP03452E:VR6948/02
TV
HEADPHONE JACK C.B.A.
(VEP00N28A :VR6948/02)
(VEP00N28B :VR6948/00)
S-VHS TERMINAL C.B.A.
(VEP00K04A)
OPERATION C.B.A.
(VEP06567A:VR6948/02)
(VEP06567B:VR6948/00)
TIMER C.B.A.
(VEP07545A)
IR RECEIVER C.B.A.
(VEP06380E)
DOOR PANEL UNIT
S-VHS C
(VEP035
P2903-1 P1202-1
P2903-2 P3805-1
P2903-3 P3805-2
P2903-4 P3805-3
P2902-1 BP2001-1
P2901-1 P002-1
P2901-10 P002-10
BP3001-1 P501-3
BP3002-1 P502-1
P4001-1 P1501-1
P6005-1 P1502-1
P7302-1 P702-1
BP7303-1 P703-1
P1203-1
P1203-2
P1202-1 P2903-1
P1201-1
P1201-5
P006-1 P2002-1
P006-8 P2002-15
P1503-1 P6002-1
P1507-1 P1508-1
P1506-1
P1506-2
P1504-1 BP8001-1
P1504-13 BP8001-13
P6502-1 P6003-1
P6502-14 P6003-14
P6504-1 P4951-1
P7504-1 P7402-1
P7505-1 P7403-1
P7503-1 BP7401-1
P7506-1 P7404-1
P3003-1 P3101-1
P3402-6
P3402-1
BP6301-1 P6505-1
P3901-1 P3409-1
P4503-1 P6503-1
P3405-1 P6506-1
P6003-1 P6502-1
P6504-1 P4951-1
P6501-1
P6501-11
P7402-1 P7504-1
P7501-1
P7403-1 P7505-1
P7503-1 BP7401-1
P7506-1 P7404-1
P7507-1 P7802-1
P7502-1
P7502-13
P3003-7 P34041
P6506-1 P34051
P3901-1 P34091
P3003-1
P302-6
P302-1


A/C HEAD UNIT
FE HEAD C.B.A. (VEP00K88C)
TV DEMODULATOR C.B.A. (VEP00H51P:VR6948/02) (VEP00H51R:VR6948/00)
VIF/SIF PACK C.B.A. (VEP07357A)
DECODER PACK C.B.A. (VEP07359A)
TUNER ARU PACK C.B.A. (VEP07358J:VR6948/02) (VEP07358K:VR6948/00)
⚠ RF CONVERTER C.B.A. (ENC87956:VR6948/02) (ENC87954:VR6948/00)
MUTING PACK C.B.A. (VEP07364A)
VPS C.B.A. (VEP07368E)
Hi-Fi AUDIO PACK C.B.A. (VEP04225A)
SUB(1) Hi-Fi AUDIO PACK C.B.A. (VEP00H59B)
SUB(2) Hi-Fi AUDIO PACK C.B.A. (VEP00L05A)
MAIN C.B.A. VEP03503A:VR6948/02) VEP03503B:VR6948/00)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03504A:VR6948/02) (VEP03504B:VR6948/00)
SUB LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03510A)
DDR SECAM PACK C.B.A. (VEP03452E:VR6948/02)
SUB SERVO PACK C.B.A. (VEP02322A)
SERVO PACK C.B.A. (VEP02298E)
INDEX SEARCH PACK C.B.A. (VEP02279A)
⚠ POWER C.B.A. (VEP01274A:VR6948/02) (VEP01274F:VR6948/00)
⚠ FUSE C.B.A. (VEK3314)
⚠ SUB POWER C.B.A. (VEP01295A)
DOOR PANEL UNIT
S-VHS C.B.A. (VEP03505A)
CCD PACK C.B.A. (VEP03542A)
LUMINANCE & CHROMINANCE SEPARATION C.B.A. (VEP03541B)

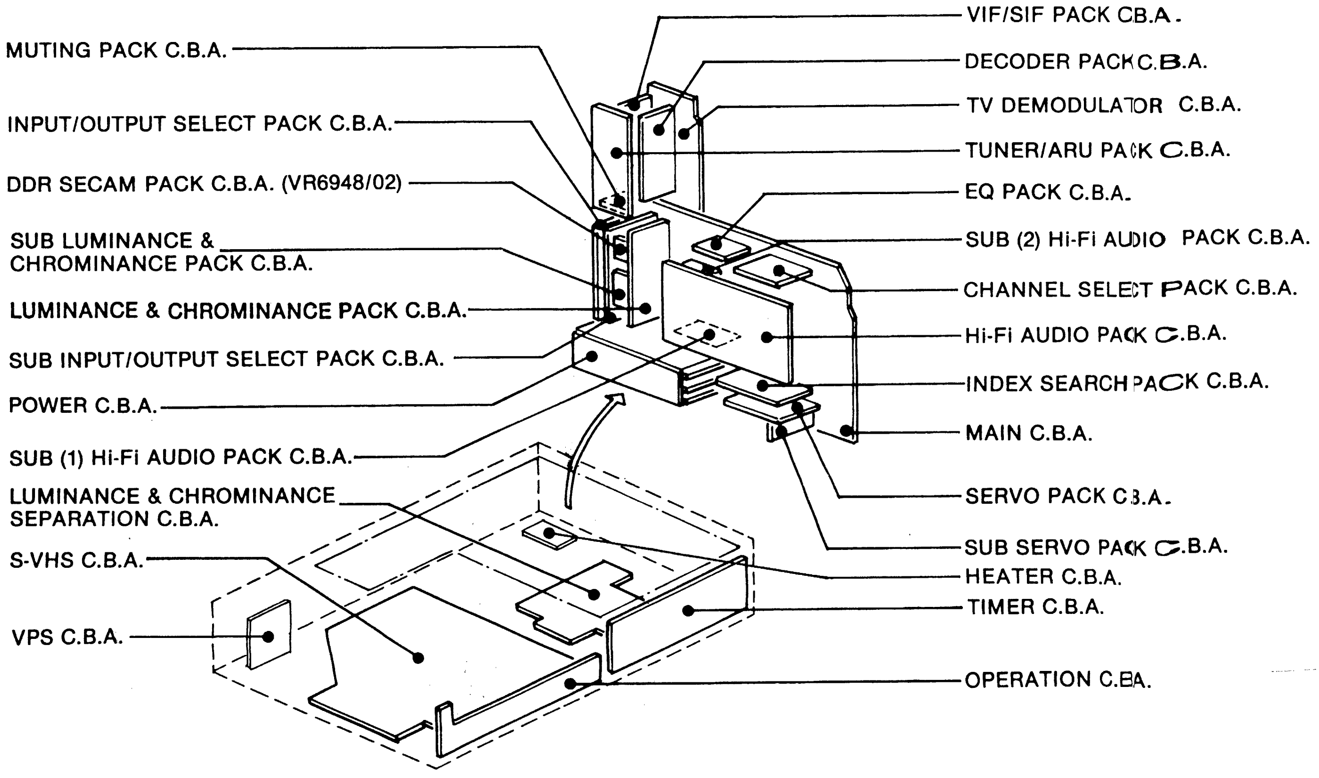

MECHANISM CONNECTION C.B.A. (VEK3354)
P1505
P1504
R1502
R1501
TO MODE SW
TO SOLENOID
TO S-VHS SW
LED C.B.A. (VXA2983)
FE HEAD C.B.A. (VEP00K88C)
C1403 C1402
T1401
P1502
L1401
CR1401
Q1401
C1401
TO FE HEAD
REEL SENSOR C.B.A. (VEK3555)
P1506
IC1501
TO SAFETY TAB SW
CYLINDER DRIVE C.B.A. (VEP00N22A)
C2903
R2901
C2902
C2901
C2911
C2912
IC2901
C2910
C2909
P2902
P2903
P2901
PHOTO TR. (S) C.B.A. (VEP00H35A)
P1507
Q1501
C1501
PHOTO TR. (T) C.B.A. (VEP00K27A)
P1508
P1503
R1503
C1502 Q1502
TO CASS. DOWN SW
MAIN C.B.A. (VEP03503A: VR69
AUDIO SECTION
CH SELECT
METER L
VR4004
VR4005
METER R
BP7401
P6003
BP7303
C7570
R6022
IC6002
IC6003
D4006
Q6015
D6018
R6047
D6035
C6021
QR7557
QR7558
QR7556
BP6001
QR6004
BP7402
P7404
SLOW FREE RUN
VR2013
P7403
P2002
IC2001
Q6019
TP6011
TRACKING FIX
VR2002
TP2099
TP2031
TP2015
TP2020
TP2009
TP2025
SERVO PACK
QR2007
C2023
TP2026
QR2006
VR2001
TP2032
TP2030
QR2008
PG SHIFTER
VR2006
VR2011
QR2004
C6013
SLOW TRACKING FIX LP
SLOW TRACKING FIX SP
SERVO SECTION
SYS

MAIN C.B.A. (VEP03503A: VR6948/02) (VEP03503B: VR6948/00)


AUDIO SECTION
CH SELECT SECTION
AUDIO SECTION
CH SELECT SECTION
LUMINANCE & CHROMINANCE SECTION
CHANNEL SELECT PACK
EQ PACK
BIAS ADJ.
P.B LEVEL
LUMINANCE & CHROMINANCE PACK
INPUT/OUTPUT SELECT PACK
METER L
METER R
SLOW FREE RUN
H SW SHIFT
SERVO PACK
PG SHIFTER
TRACKING FIX
SLOW TRACKING FIX LP
SLOW TRACKING FIX SP
TO EARTH
SERVO SECTION
SYSTEM CONTROL SECTION
POWER SECTION

VEP03503B	MAIN C.B.A.	VR6948/00
VEP03503A	MAIN C.B.A.	VR6948/02
VEP04173S	INPUT/OUTPUT SELECT PACK C.B.A.	VR6948/00
VEP04173R	INPUT/OUTPUT SELECT PACK C.B.A.	VR6948/02
VEP04174H	SUB INPUT/OUTPUT SELECT C.B.A.	
VEP02298E	SERVO PACK C.B.A.	
VEP02322A	SUB SERVO PACK C.B.A.	
VEP00L06A	EQUALISER PACK C.B.A.	
VEP03504B	LUMINANCE AND CHROMINANCE C.B.A.	VR6948/00
VEP03504A	LUMINANCE AND CHROMINANCE C.B.A.	VR6948/02
VEP03510A	SUB LUMINANCE & CHROMINANCE PACK	
VEP03452A	SECAM OST PACK C.B.A.	VR6948/02
VEP07510A	CHANNEL SELECT PACK C.B.A.	
VEP04225A	HI-FI AUDIO PACK C.B.A.	
VEP00H59B	SUB-1 HI-FI AUDIO PACK C.B.A.	
VEP00L05A	SUB-2 HI-FI AUDIO PACK C.B.A.	
VEP00N28B	HEAD PHONE JACK C.B.A.	
VEP00K04A	S-VHS TERMINAL C.B.A.	
VEP00N25A	HEATER C.B.A.	
VEP03505A	S-VHS C.B.A.	
VEP03541B	LUMINANCE / CHROMINANCE SEPARATION	
VEP03542A	CCD PACK C.B.A.	
VEP05111B	HEAD AMPLIFIER C.B.A.	
VEP06567B	OPERATION C.B.A.	VR6948/00
VEP06567A	OPERATION C.B.A.	VR6948/02
VEP07368E	VPS C.B.A.	
VEP00H51R	TV DEMODULATOR INTERFACE C.B.A.	VR6948/00
VEP00H51P	TV DEMODULATOR INTERFACE C.B.A.	VR6948/02
VEP07357A	VIF / SIF PACK C.B.A.	
VEP07358K	TUNER ARU PACK C.B.A.	VR6948/00
VEP07358J	TUNER ARU PACK C.B.A.	VR6948/02
VEP07364A	MUTING PACK C.B.A.	
VEP07359A	DECODER PACK C.B.A.	
VEP07545A	TIMER C.B.A.	
VEP06380E	IR RECEIVER C.B.A.	
VEP01274F	POWER C.B.A.	VR6948/00
VEP01274A	POWER C.B.A.	VR6948/02
VEP01295A	SUB POWER C.B.A.	

CIRCUIT BOARD LAYOUT


MUTING PACK C.B.A.
INPUT/OUTPUT SELECT PACK C.B.A.
DDR SECAM PACK C.B.A. (VR6948/02)
SUB LUMINANCE & CHROMINANCE PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
SUB INPUT/OUTPUT SELECT PACK C.B.A.
POWER C.B.A.
SUB (1) Hi-Fi AUDIO PACK C.B.A.
LUMINANCE & CHROMINANCE SEPARATION C.B.A.
S-VHS C.B.A.
VPS C.B.A.
VIF/SIF PACK C.B.A.
DECODER PACK C.B.A.
TV DEMODULATOR C.B.A.
TUNER/ARU PACK C.B.A.
EQ PACK C.B.A.
SUB (2) Hi-Fi AUDIO PACK C.B.A.
CHANNEL SELECT PACK C.B.A.
Hi-Fi AUDIO PACK C.B.A.
INDEX SEARCH PACK C.B.A.
MAIN C.B.A.
SERVO PACK C.B.A.
SUB SERVO PACK C.B.A.
HEATER C.B.A.
TIMER C.B.A.
OPERATION C.B.A.

Miscellaneous

	4822 466 10572	SHIELD PLATE
	4822 256 30399	FUSE HOLDER
P1001	4822 267 50912	CONNECTOR (FEMALE)

C1001	4822 122 33931	C.CAP 1000P /00
C1002	4822 122 33931	C.CAP 1000P /00
C1003	4822 122 33931	C.CAP 1000P /00
C1004	4822 122 33931	C.CAP 1000P /00
C1001	4822 122 33929	C.CAP 330P /02
C1002	4822 122 33929	C.CAP 330P /02
C1003	4822 122 33929	C.CAP 330P /02
C1004	4822 122 33929	C.CAP 330P /02
C1005	4822 122 33932	C.CAP 250V 1500P
C1006	4822 122 33932	C.CAP 250V 1500P
C1007	4822 122 33932	C.CAP 250V 1500P
C1008	4822 122 33932	C.CAP 250V 1500P
C1009	4822 121 51454	P.CAP 250V 0.100 µF
C1010	4822 124 22869	E.CAP 400V 100 µF /00
C1010	4822 124 22871	E.CAP 400V 100 µF /02
C1011	4822 121 51452	P.CAP 630V 0.047 µF
C1012	4822 124 22861	E.CAP 16V 47 µF
C1013	4822 121 42158	P.CAP 50V 4700P
C1014	4822 121 51449	P.CAP 50V 0.47 µF
C1018	4822 124 22863	E.CAP 50V 100 µF
C1019	4822 124 22866	E.CAP 18V 2200 µF
C1020	4822 124 22866	E.CAP 18V 2200 µF
C1021	4822 124 22859	E.CAP 16V 10 µF
C1022	4822 124 22864	E.CAP 50V 47 µF
C1023	4822 124 22862	E.CAP 25V 1000 µF
C1024	4822 124 22857	E.CAP 6.3V 1000 µF
C1027	4822 122 33925	C.CAP 2KV 150P
C1030	4822 122 32247	C.CAP 50V 0.01 µF
C1031	4822 122 33932	C.CAP 250V 1500P
C1032	4822 122 33932	C.CAP 250V 1500P
C1033	4822 122 33931	C.CAP 1000P /00
C1034	4822 122 33931	C.CAP 1000P /00
C1033	4822 122 33929	C.CAP 330P /02
C1034	4822 122 33929	C.CAP 330P /02
C1035	4822 122 33932	C.CAP 250V 1500P
C1036	4822 122 33932	C.CAP 250V 1500P
C1037	4822 121 51455	P.CAP 250V 0.22 µF
C1038	4822 122 33932	C.CAP 250V 1500P
C1039	4822 124 22861	E.CAP 16V 47 µF
C1040	4822 121 51453	P.CAP 125V 100P
C1041	4822 121 42257	P.CAP 50V 0.022 µF
C1042	4822 122 32247	C.CAP 50V 0.01 µF
C1044	4822 124 22863	E.CAP 50V 100 µF
C1045	4822 124 22858	E.CAP 10V 47 µF
C1046	4822 121 42257	P.CAP 50V 0.022 µF

D1001	4822 130 32748	S1WBA60
D1002	4822 130 81378	AP01C
D1003	4822 130 81384	MA178
D1004	4822 130 81384	MA178
D1005	4822 130 81384	MA178
D1007	4822 130 80528	MA185
D1008	4822 130 80528	MA185
D1010	4822 130 81381	ERD32-01
D1012	4822 130 81389	MA4130L
D1013	4822 130 80528	MA185

D1015	4822 130 32709	ERC81-004
D1016	4822 130 81377	AK04V2
D1024	4822 130 81384	MA178
D1025	4822 130 81384	MA178
D1026	4822 130 81388	MA4100H
D1027	4822 130 81381	ERD32-01
D1029	4822 130 80699	ENB461D-05A
D1030	4822 130 81387	MA4082
D1031	4822 130 81377	AK04V2
D1032	4822 130 81379	ERA22-10

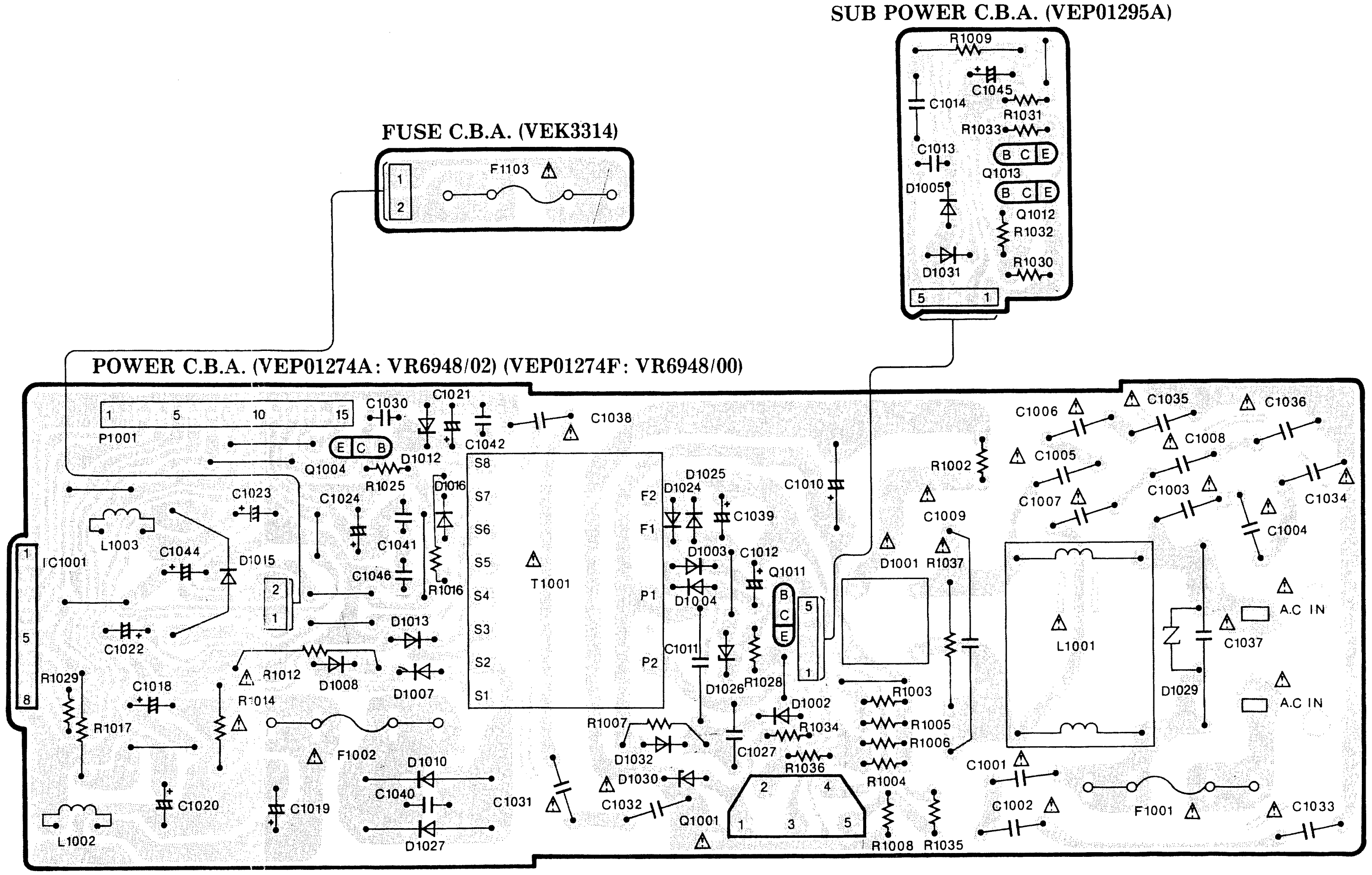
IC	4822 209 60563	STK5339

L1001	4822 157 60007
L1002,	4822 157 60006

Q1001	4822 130 61606	STR16006
Q1004	4822 130 41324	2SD638
Q1011	4822 130 61591	2SB643
Q1012	4822 130 42674	2SD958
Q1013	4822 130 42573	2SB788

R1002	4822 113 60192	W.RES 2W 2.2
R1003	4822 116 52285	C.RES 470 kΩ
R1004	4822 116 52285	C.RES 470 kΩ
R1005	4822 116 52285	C.RES 470 kΩ
R1006	4822 116 52285	C.RES 470 kΩ
R1007	4822 116 60536	METAL OXIDE 3W 68 kΩ
R1008	4822 113 60193	WIRE WOUND 2W 0.39
R1009	4822 116 81419	M.RES 1W 180
R1012	4822 116 52594	FUSE 1/2W 6.8
R1014	4822 116 81418	C.RES 2W 4.7
R1016	4822 116 81426	M.RES 1/2W 2.2
R1017	4822 116 81421	M.RES 1/2W 3.3 kΩ
R1025	4822 116 52289	C.RES 5.6 kΩ
R1028	4822 116 52217	C.RES 270
R1029	4822 116 52233	C.RES 10 kΩ
R1030	4822 116 52233	C.RES 10 kΩ
R1031	4822 116 52175	C.RES 100
R1032	4822 116 52204	C.RES 1 kΩ
R1033	4822 116 52271	C.RES 33 kΩ
R1034	4822 116 52211	C.RES 15
R1035	4822 113 60193	WIRE WOUND 2W 0.39
R1036	4822 116 52234	C.RES 100 kΩ
R1037	4822 111 91728	S.RES 1/2W 330 kΩ

T1001	4822 146 21424	TRANSFORMER

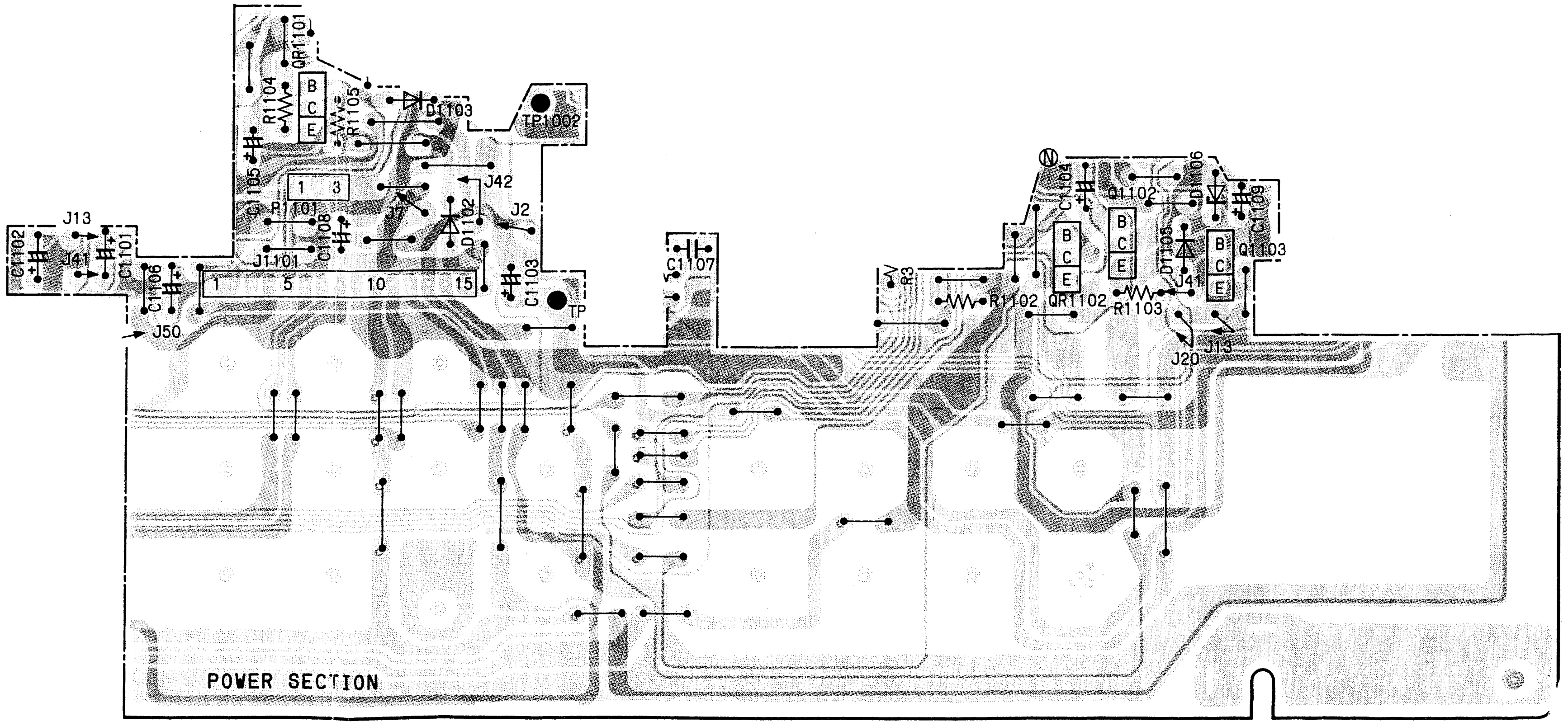


SUB POWER C.B.A. (VEP01295A)

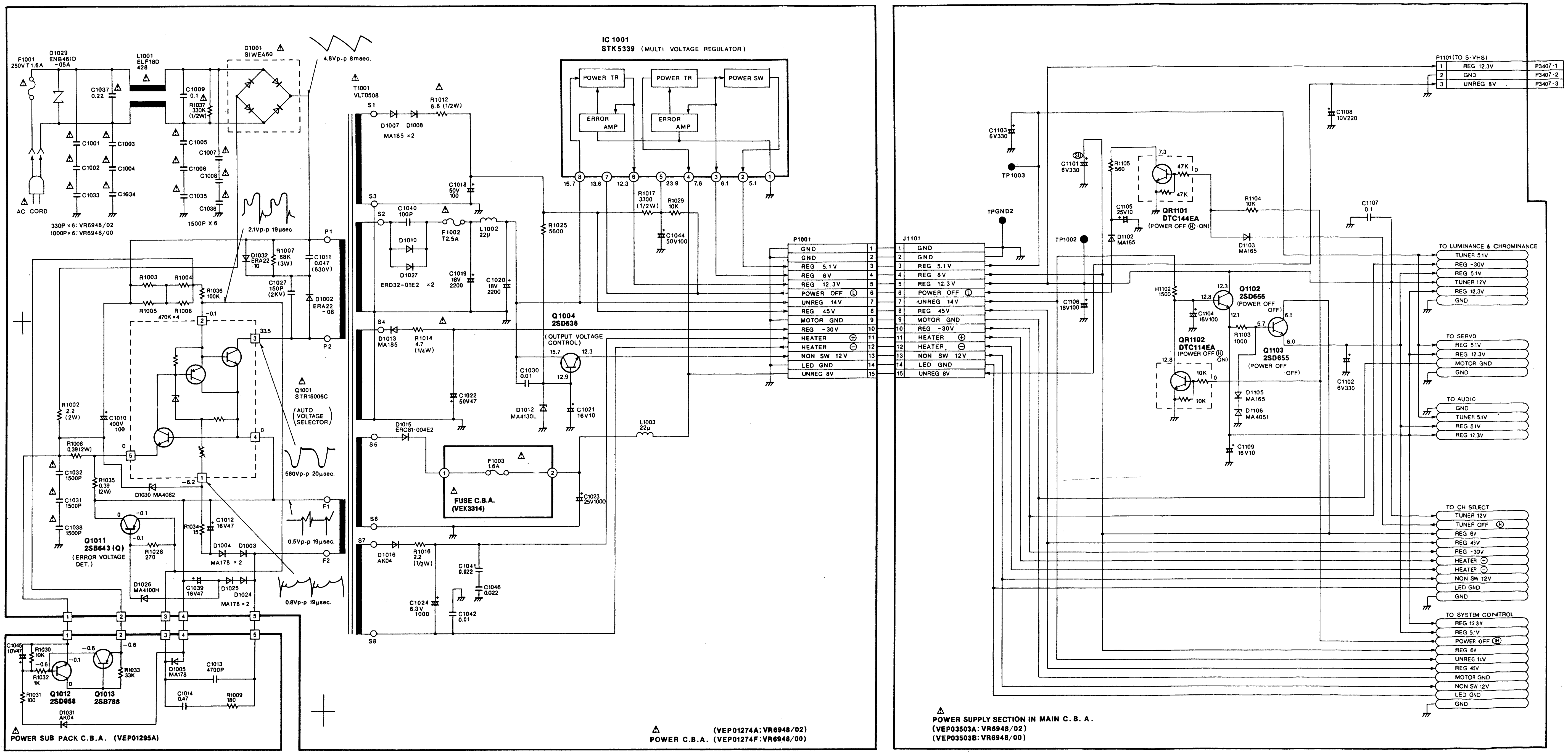
FUSE C.B.A. (VEK3314)

POWER C.B.A. (VEP01274A: VR6948/02) (VEP01274F: VR6948/00)

R1009
C1045
C1014
R1031
R1033
C1013
Q1013
D1005
Q1012
R1032
D1031
R1030
F1103
P1001
C1030
C1021
C1042
C1038
Q1004
D1012
R1025
D1016
C1023
C1024
L1003
IC1001
C1044
D1015
C1041
C1046
R1016
T1001
S1
S2
S3
S4
S5
S6
S7
S8
F1
F2
P1
P2
D1025
D1024
C1039
D1003
C1012
Q1011
D1004
C1010
C1011
D1026
R1028
D1013
C1022
R1012
D1008
D1007
R1029
R1017
C1018
R1014
F1002
D1010
C1040
D1027
C1020
C1019
L1002
C1031
R1007
D1032
D1030
C1032
Q1001
C1027
D1002
R1034
R1036
R1003
R1005
R1006
R1004
R1008
R1035
D1001
R1037
C1009
R1002
C1006
C1005
C1007
C1035
C1036
C1008
C1003
C1034
C1004
L1001
C1037
D1029
A.C IN
C1001
C1002
F1001
C1033



QR1101
R1104
R1105
D1103
TP1002
C1105
R1101
C1108
J42
J2
J7
D1102
J13
J41
C1102
C1101
C1106
J1101
C1103
TP
J50
C1107
R3
R1102
QR1102
C1104
Q1102
D1106
C1109
D1105
Q1103
R1103
J20
POWER SECTION


F1001 250V T1.6A
D1029 ENB461D -05A
L1001 ELF18D 428
D1001 SIWEA60
4.8Vp-p 8msec.
AC CORD
330P × 6: VR6948/02
1000P × 6: VR6948/00
1500P X 6
2.1Vp-p 19μsec.
T1001 VLT0508
IC 1001
STK5339 (MULTI VOLTAGE REGULATOR)
POWER TR
POWER TR
POWER SW
ERROR AMP
ERROR AMP
Q1001 STR16006C (AUTO VOLTAGE SELECTOR)
560Vp-p 20μsec.
0.5Vp-p 19μsec.
0.8Vp-p 19μsec.
Q1011 2SB643 (Q) (ERROR VOLTAGE DET.)
Q1004 2SD638 (OUTPUT VOLTAGE CONTROL)
FUSE C.B.A. (VEK3314)
F1003 1.6A
Q1012 2SD958
Q1013 2SB788
POWER SUB PACK C.B.A. (VEP01295A)
POWER C.B.A. (VEP01274A: VR6948/02) (VEP01274F: VR6948/00)
P1001
J1101
GND
GND
REG 5.1V
REG 6V
REG 12.3V
POWER OFF Ⓛ
UNREG 14V
REG 45V
MOTOR GND
REG -30V
HEATER ⊕
HEATER ⊖
NON SW 12V
LED GND
UNREG 8V
TP1003
TPGND2
TP1002
QR1101 DTC144EA (POWER OFF Ⓗ: ON)
Q1102 2SD655 (POWER OFF: OFF)
QR1102 DTC114EA (POWER OFF Ⓗ: ON)
Q1103 2SD655 (POWER OFF: OFF)
P1101 (TO S-VHS)
REG 12.3V P3407-1
GND P3407-2
UNREG 8V P3407-3
TO LUMINANCE & CHROMINANCE
TO SERVO
TO AUDIO
TO CH SELECT
TO SYSTEM CONTROL
POWER SUPPLY SECTION IN MAIN C.B.A.
(VEP03503A: VR6948/02)
(VEP03503B: VR6948/00)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

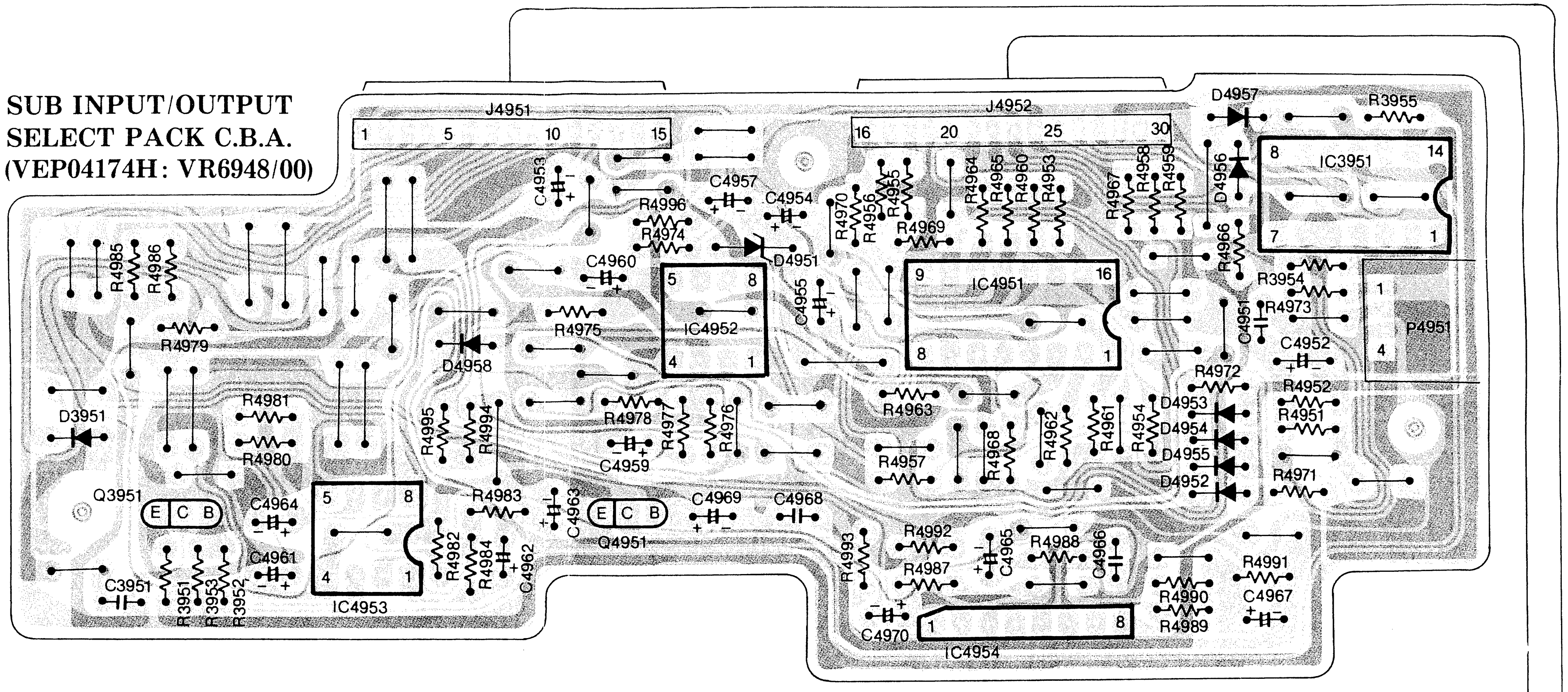
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

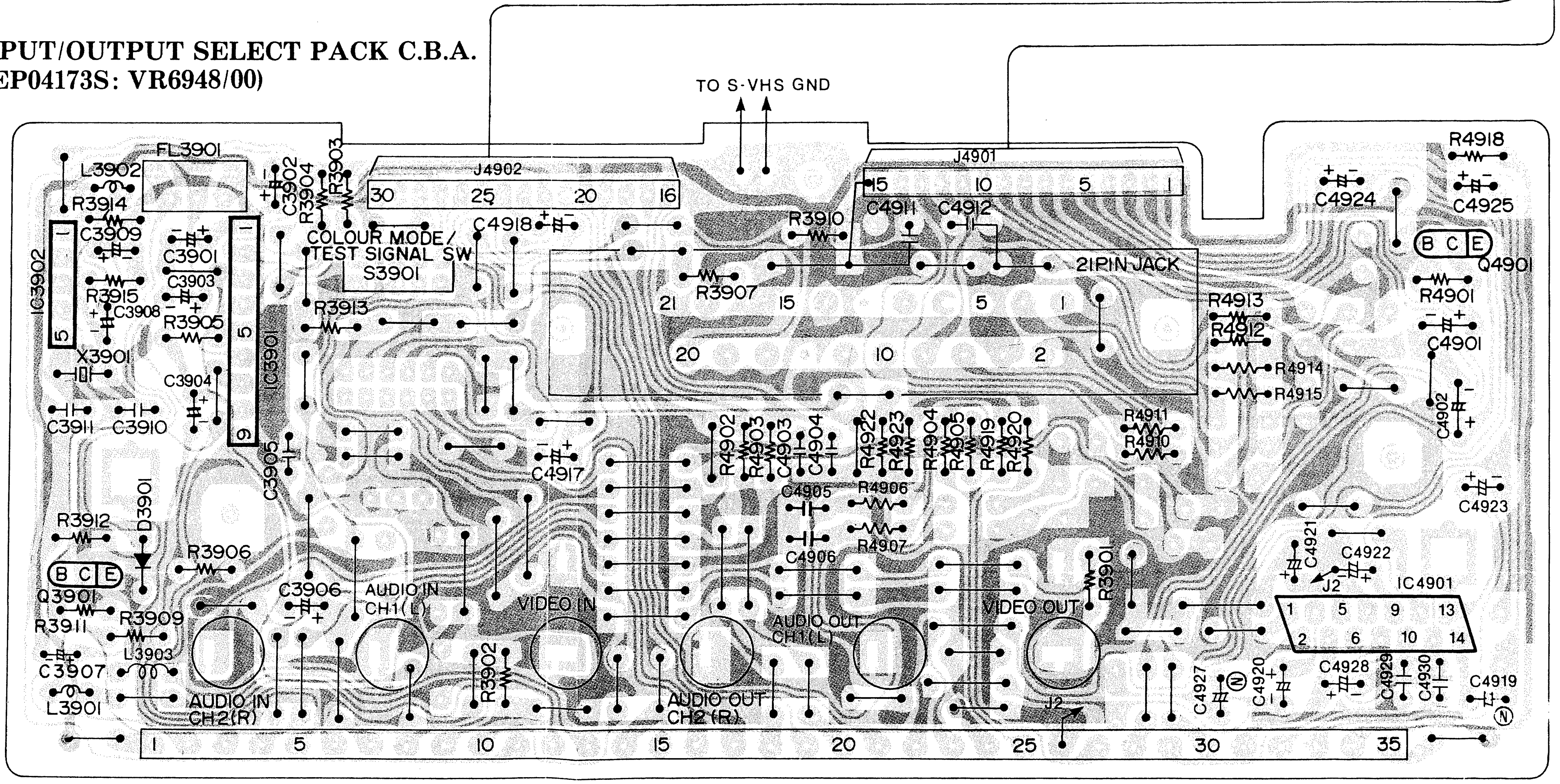
NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... Q1001-(5)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

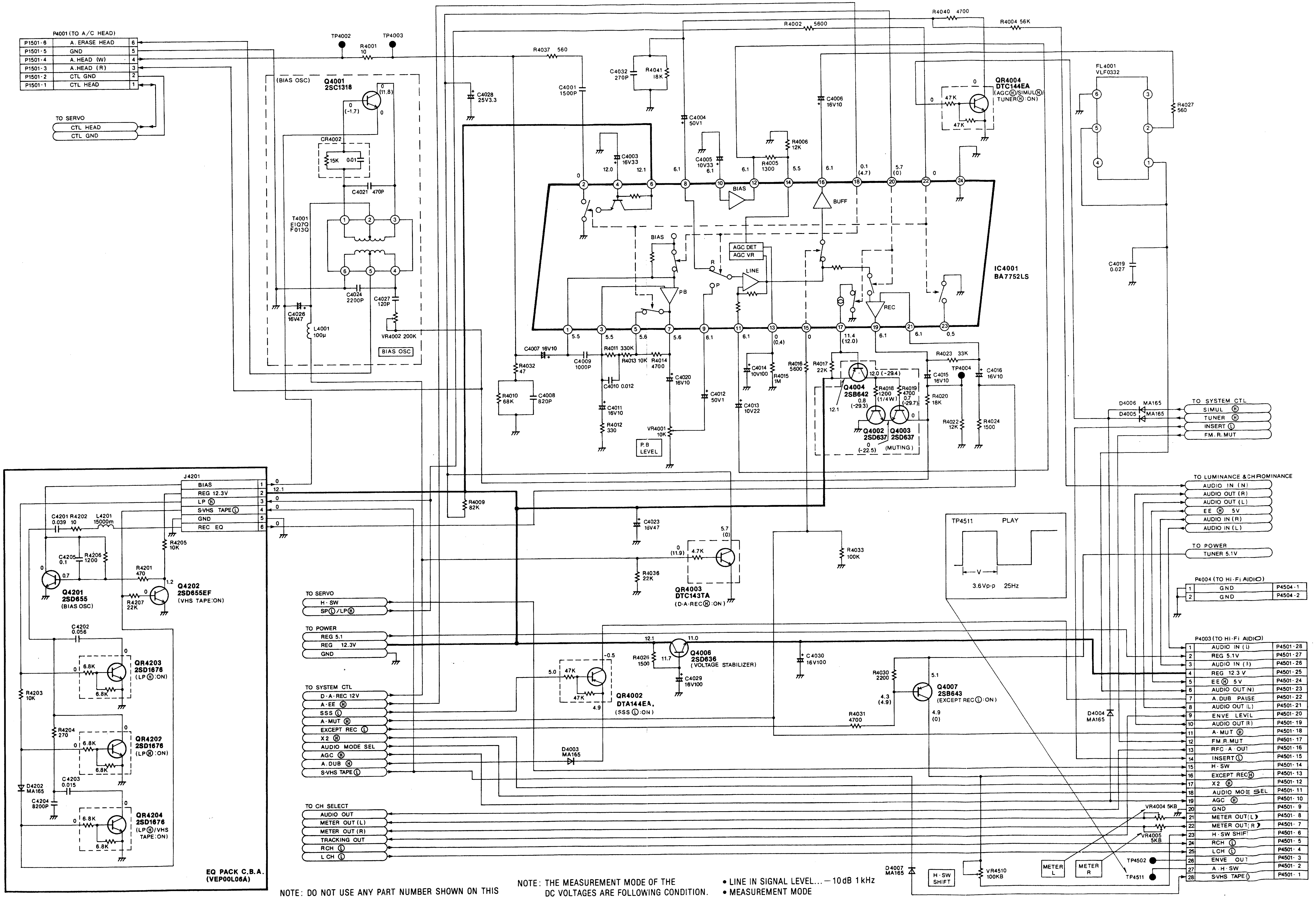
NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 220V.

SUB INPUT/OUTPUT SELECT PACK C.B.A. (VEP04174H: VR6948/00)


J4951
1
5
10
15
J4952
16
20
25
30
D4957
R3955
IC3951
D4956
C4953
C4957
C4954
R4996
R4974
D4951
C4960
IC4952
C4955
R4975
D4958
R4970
R4956
R4955
R4969
R4964
R4965
R4960
R4953
R4967
R4958
R4959
R4966
IC4951
R3954
R4973
C4951
C4952
P4951
R4985
R4986
R4979
R4981
R4980
D3951
Q3951
E C B
C4964
C4961
C3951
R3951
R3953
R3952
IC4953
R4995
R4994
R4978
C4959
R4977
R4976
R4983
C4963
Q4951
R4982
R4984
C4962
C4969
C4968
R4963
R4957
R4968
R4962
R4961
R4954
R4972
D4953
D4954
D4955
D4952
R4952
R4951
R4971
R4993
R4992
R4987
C4965
R4988
C4966
R4991
R4990
R4989
C4967
C4970
IC4954

INPUT/OUTPUT SELECT PACK C.B.A. (VEP04173S: VR6948/00)


TO S·VHS GND
FL3901
L3902
C3902
R3904
R3903
J4902
30
25
20
16
J4901
15
10
5
1
R4918
C4924
C4925
R3914
C3909
C3901
COLOUR MODE/ TEST SIGNAL SW
S3901
C4918
R3910
C4911
C4912
IC3902
C3903
R3915
C3908
R3905
R3913
R3907
21PIN JACK
21
15
5
1
20
10
2
B C E
Q4901
R4901
C4901
R4913
R4912
R4914
R4915
X3901
C3904
IC3901
C3911
C3910
C3905
C4917
R4902
R4903
C4903
C4904
R4922
R4923
R4904
R4905
R4919
R4920
R4911
R4910
C4902
C4905
R4906
R4907
C4906
C4923
D3901
R3912
R3906
C4921
C4922
J2
IC4901
Q3901
R3911
R3909
C3906
AUDIO IN CH1(L)
VIDEO IN
AUDIO OUT CH1(L)
VIDEO OUT
R3901
1
5
9
13
2
6
10
14
C3907
L3903
L3901
AUDIO IN CH2(R)
R3902
AUDIO OUT CH2(R)
C4927
C4920
C4928
C4929
C4930
C4919
1
5
10
15
20
25
30
35

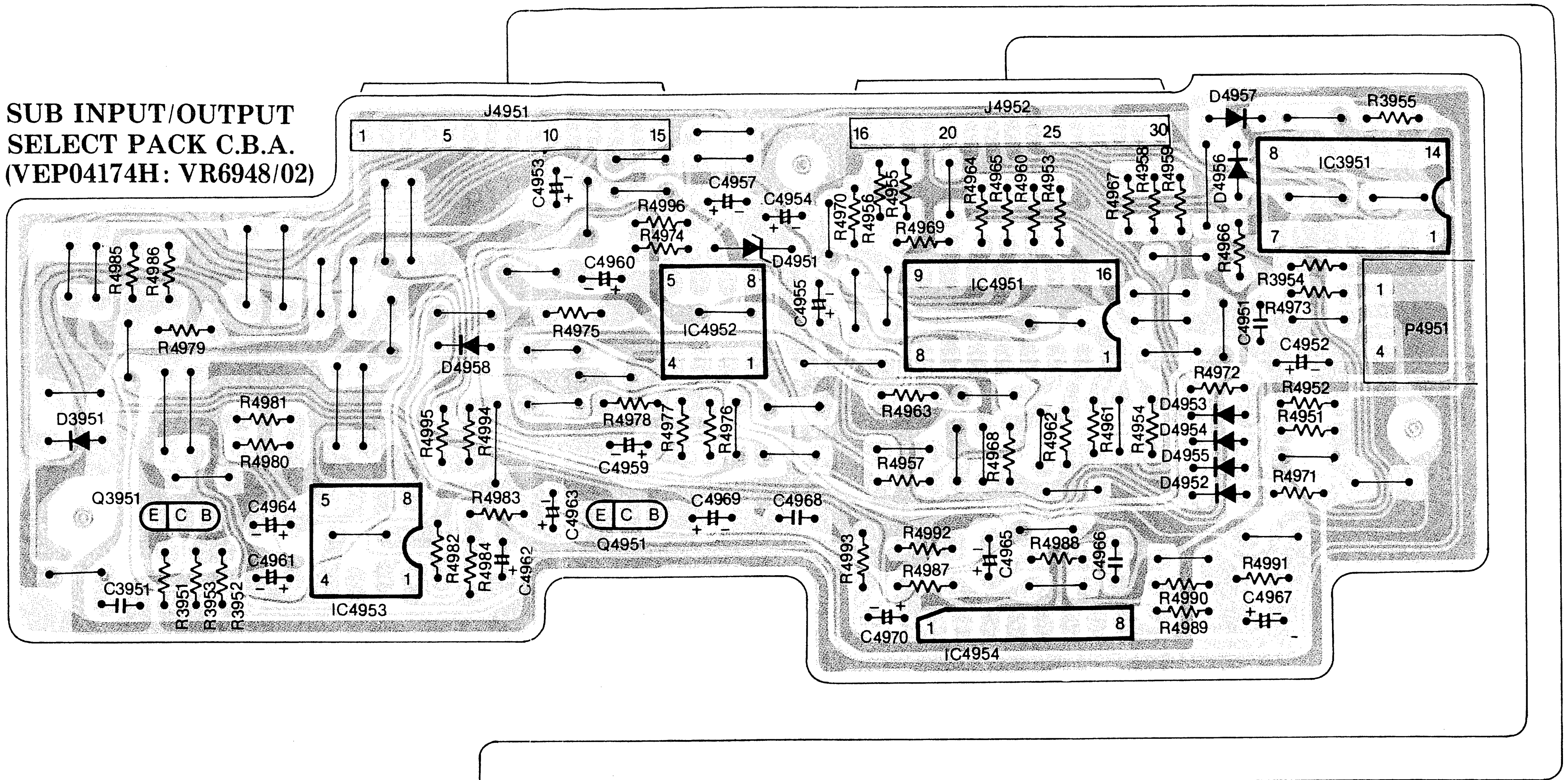

P4001 (TO A/C HEAD)
P1501-6 A. ERASE HEAD 6
P1501-5 GND 5
P1501-4 A. HEAD (W) 4
P1501-3 A. HEAD (R) 3
P1501-2 CTL GND 2
P1501-1 CTL HEAD 1
TO SERVO
CTL HEAD
CTL GND
TP4002
TP4003
R4001 10
(BIAS OSC)
Q4001 2SC1318
CR4002
15K 0.01
C4021 470P
T4001 EIQ7Q F013Q
C4024 2200P
C4027 120P
C4026 16V47
L4001 100μ
VR4002 200K
BIAS OSC
C4028 25V3.3
R4037 560
C4001 1500P
C4032 270P
R4041 18K
C4003 16V33
C4004 50V1
C4005 10V33
R4005 1300
R4006 12K
C4006 16V10
R4002 5600
R4040 4700
R4004 56K
QR4004 DTC144EA (AGC Ⓗ/SIMUL Ⓗ/TUNER Ⓗ:ON)
47K
FL4001 VLF0332
R4027 560
C4019 0.027
BIAS
AGC DET
AGC VR
LINE
BUFF
PB
REC
IC4001 BA7752LS
C4007 16V10
R4032 47
C4009 1000P
R4011 330K
R4013 10K
R4014 4700
C4010 0.012
R4010 68K
C4008 820P
C4011 16V10
R4012 330
C4020 16V10
C4012 50V1
VR4001 10K
P.B LEVEL
C4014 10V100
R4015 1M
C4013 10V22
R4016 5600
R4017 22K
Q4004 2SB642
R4018 1200 (1/4W)
R4019 4700
Q4002 2SD637
Q4003 2SD637
(MUTING)
R4023 33K
TP4004
C4015 16V10
C4016 16V10
R4020 18K
R4022 12K
R4024 1500
D4006 MA165
D4005 MA165
TO SYSTEM CTL
SIMUL Ⓗ
TUNER Ⓗ
INSERT Ⓛ
FM.R.MUT
J4201
BIAS 1
REG 12.3V 2
LP Ⓗ 3
S-VHS TAPE Ⓛ 4
GND 5
REC EQ 6
C4201 0.039
R4202 10
L4201 15000m
C4205 0.1
R4206 1200
R4205 10K
R4201 470
R4207 22K
Q4201 2SD655 (BIAS OSC)
Q4202 2SD655EF (VHS TAPE:ON)
C4202 0.056
QR4203 2SD1676 (LP Ⓗ:ON)
R4203 10K
R4204 270
QR4202 2SD1676 (LP Ⓗ:ON)
C4203 0.015
D4202 MA165
C4204 8200P
QR4204 2SD1676 (LP Ⓗ/VHS TAPE:ON)
6.8K
EQ PACK C.B.A. (VEP00L06A)
R4009 82K
C4023 16V47
R4036 22K
QR4003 DTC143TA (D-A-REC Ⓗ:ON)
4.7K
R4033 100K
TP4511 PLAY
3.6Vp-p 25Hz
TO LUMINANCE & CHROMINANCE
AUDIO IN (N)
AUDIO OUT (R)
AUDIO OUT (L)
EE Ⓗ 5V
AUDIO IN (R)
AUDIO IN (L)
TO POWER
TUNER 5.1V
P4004 (TO HI-FI AUDIO)
1 GND P4504-1
2 GND P4504-2
TO SERVO
H-SW
SP Ⓛ/LP Ⓗ
TO POWER
REG 5.1
REG 12.3V
GND
Q4006 2SD636 (VOLTAGE STABILIZER)
R4026 1500
C4029 16V100
C4030 16V100
QR4002 DTA144EA (SSS Ⓛ:ON)
47K
R4030 2200
Q4007 2SB643 (EXCEPT REC Ⓛ:ON)
R4031 4700
D4004 MA165
D4003 MA165
TO SYSTEM CTL
D-A-REC 12V
A-EE Ⓗ
SSS Ⓛ
A-MUT Ⓗ
EXCEPT REC Ⓛ
X2 Ⓗ
AUDIO MODE SEL
AGC Ⓗ
A.DUB Ⓗ
S-VHS TAPE Ⓛ
TO CH SELECT
AUDIO OUT
METER OUT (L)
METER OUT (R)
TRACKING OUT
RCH Ⓛ
L CH Ⓛ
D4007 MA165
H-SW SHIFT
VR4510 100KB
METER L
METER R
VR4004 5KB
VR4005 5KB
TP4502
TP4511
P4003 (TO HI-FI AUDIO)
1 AUDIO IN (L) P4501-28
2 REG 5.1V P4501-27
3 AUDIO IN (R) P4501-26
4 REG 12.3V P4501-25
5 EE Ⓗ 5V P4501-24
6 AUDIO OUT (N) P4501-23
7 A.DUB PAUSE P4501-22
8 AUDIO OUT (L) P4501-21
9 ENVE LEVEL P4501-20
10 AUDIO OUT (R) P4501-19
11 A-MUT Ⓗ P4501-18
12 FM.R.MUT P4501-17
13 RFC A OUT P4501-16
14 INSERT Ⓛ P4501-15
15 H-SW P4501-14
16 EXCEPT REC Ⓗ P4501-13
17 X2 Ⓗ P4501-12
18 AUDIO MODE SEL P4501-11
19 AGC Ⓗ P4501-10
20 GND P4501-9
21 METER OUT (L) P4501-8
22 METER OUT (R) P4501-7
23 H-SW SHIFT P4501-6
24 RCH Ⓛ P4501-5
25 LCH Ⓛ P4501-4
26 ENVE OUT P4501-3
27 A H-SW P4501-2
28 S-VHS TAPE Ⓛ P4501-1

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

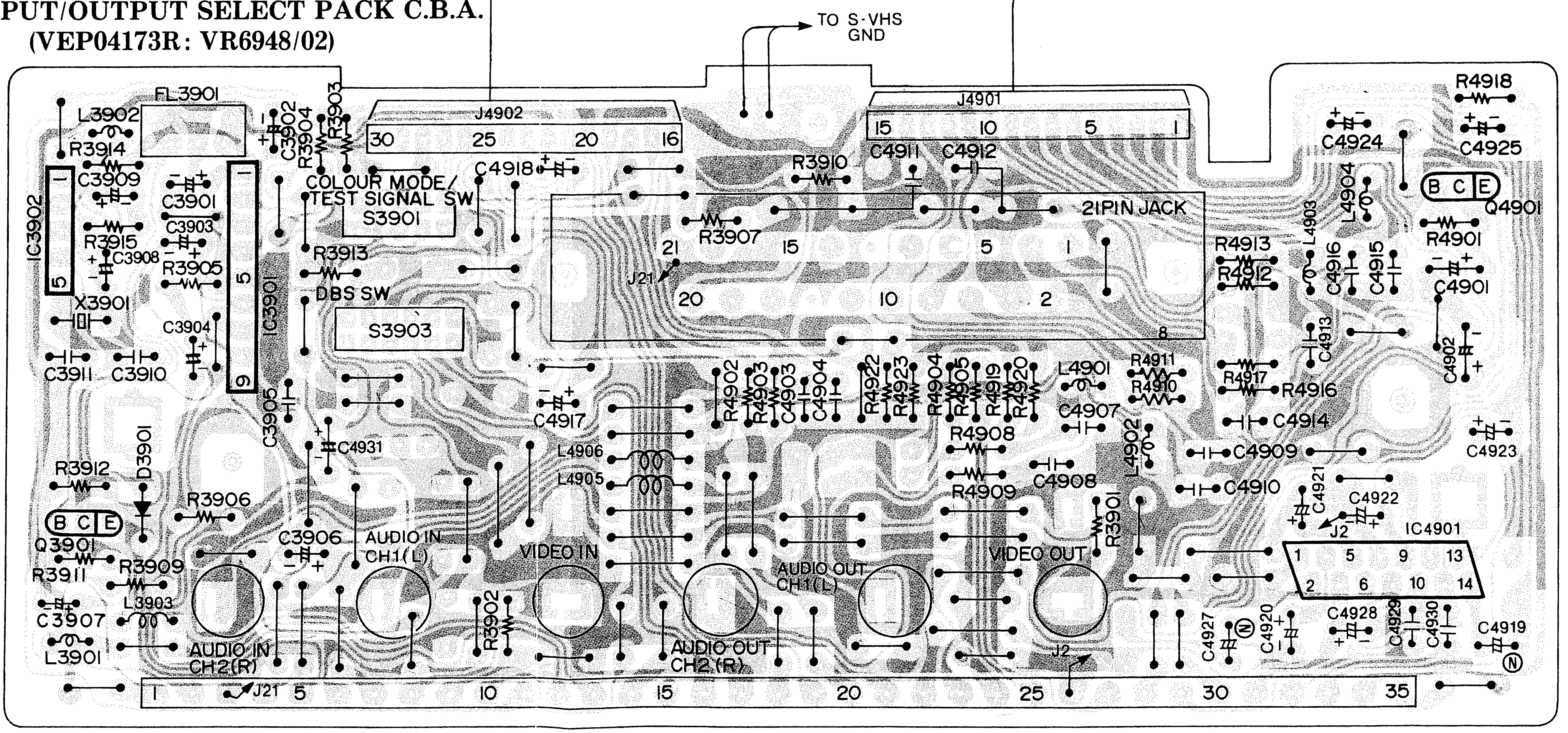
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION.

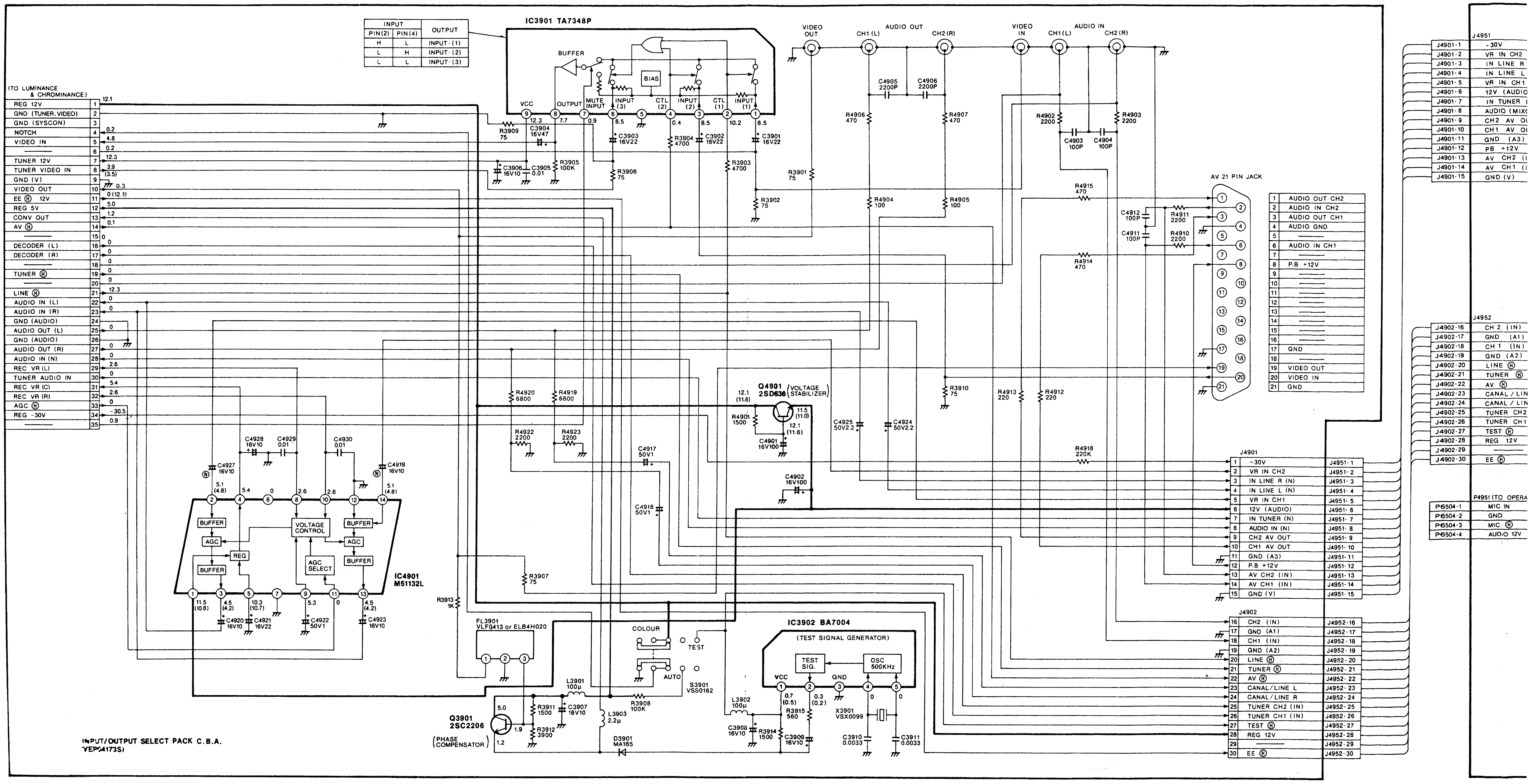
- LINE IN SIGNAL LEVEL... −10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS ( )
  PLAY...WITHOUT BRACKETS
  (S-VHS: SP MODE)

SUB INPUT/OUTPUT SELECT PACK C.B.A. (VEP04174H: VR6948/02)


J4951
1
5
10
15
J4952
16
20
25
30
D4957
R3955
IC3951
8
14
7
1
D4956
R4966
R3954
R4973
P4951
C4952
R4972
R4952
R4951
R4971
D4953
D4954
D4955
D4952
C4953
C4957
C4954
R4996
R4974
D4951
C4960
R4975
IC4952
C4955
R4970
R4956
R4955
R4969
R4964
R4965
R4960
R4953
R4967
R4958
R4959
IC4951
9
16
C4951
R4985
R4986
R4979
D4958
R4981
R4980
D3951
Q3951
E C B
C4964
C4961
C3951
R3951
R3953
R3952
IC4953
R4995
R4994
R4978
C4959
R4977
R4976
R4983
C4963
Q4951
R4982
R4984
C4962
C4969
C4968
R4963
R4957
R4968
R4962
R4961
R4954
R4993
R4992
R4987
C4965
R4988
C4966
C4970
IC4954
R4991
C4967
R4990
R4989

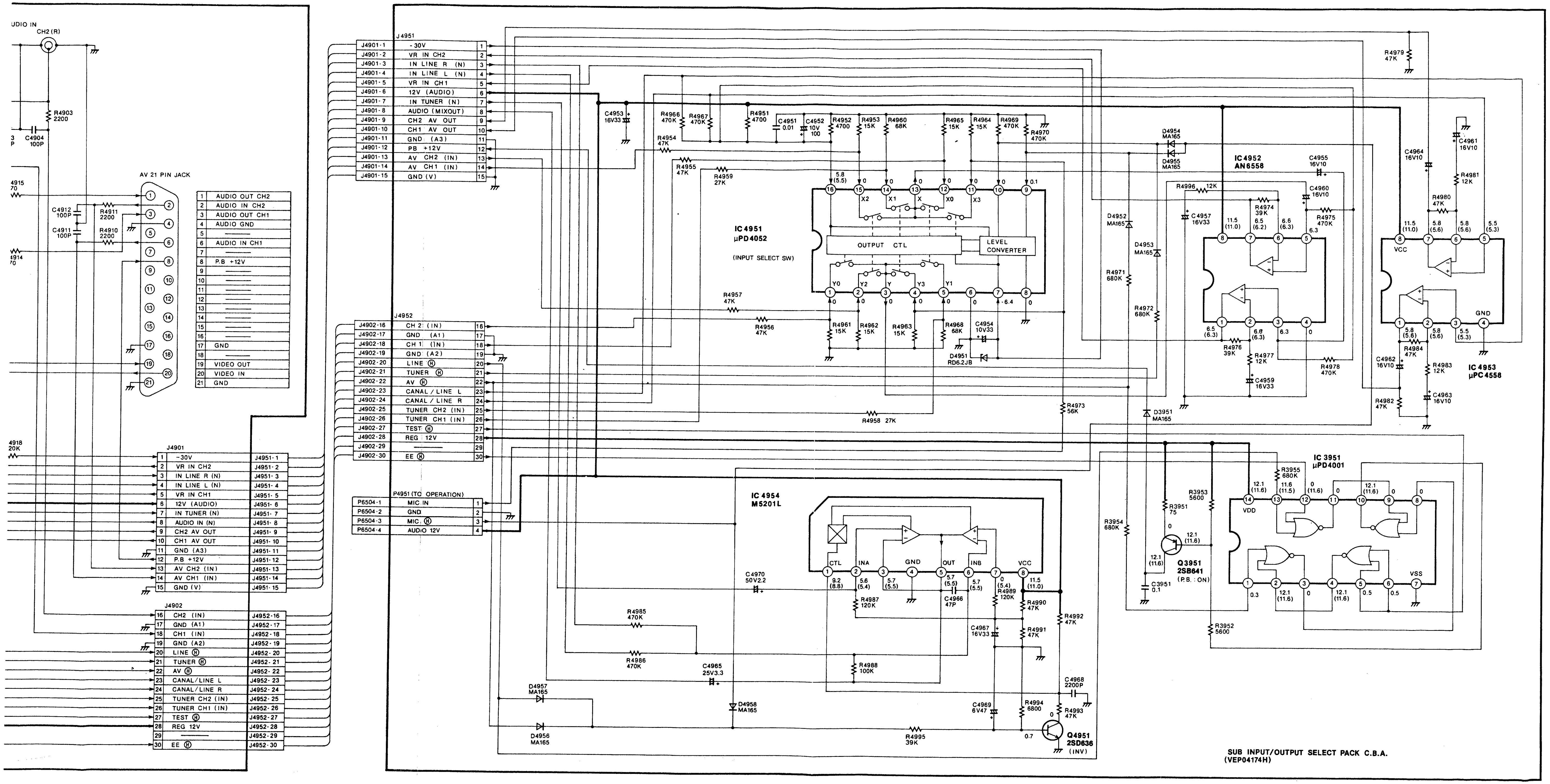
INPUT/OUTPUT SELECT PACK C.B.A. (VEP04173R: VR6948/02)


TO S-VHS GND
J4901
15
10
5
1
J4902
30
25
20
16
FL3901
L3902
R3914
C3902
R3904
R3903
C3909
C3901
C3903
R3915
C3908
R3905
IC3902
IC3901
X3901
C3904
C3911
C3910
COLOUR MODE/ TEST SIGNAL SW
S3901
R3913
DBS SW
S3903
C4918
R3910
C4911
C4912
R3907
21PIN JACK
21
20
J21
R4918
C4924
C4925
Q4901
L4904
L4903
R4913
R4912
R4901
C4916
C4915
C4901
C4913
C4902
R4911
R4910
R4917
R4916
C4914
C4909
C4910
C4923
C4921
C4922
J2
IC4901
1
5
9
13
2
6
10
14
C3905
C4917
C4931
L4906
L4905
R4902
R4903
C4903
C4904
R4922
R4923
R4904
R4905
R4919
R4920
L4901
C4907
R4908
R4909
C4908
L4902
R3901
R3912
D3901
Q3901
B C E
R3911
R3906
C3906
R3909
L3903
C3907
L3901
AUDIO IN CH2(R)
AUDIO IN CH1(L)
VIDEO IN
R3902
AUDIO OUT CH1(L)
AUDIO OUT CH2(R)
VIDEO OUT
C4927
C4920
C4928
C4929
C4930
C4919
N
35



INPUT/OUTPUT SELECT PACK C.B.A. (VEP04173S)

IC3901 TA7348P
INPUT PIN(2) PIN(4) OUTPUT
H L INPUT-(1)
L H INPUT-(2)
L L INPUT-(3)
BUFFER
BIAS
VCC
OUTPUT
MUTE INPUT
INPUT (3)
CTL (2)
INPUT (2)
CTL (1)
INPUT (1)
(TO LUMINANCE & CHROMINANCE)
REG 12V
GND (TUNER.VIDEO)
GND (SYSCON)
NOTCH
VIDEO IN
TUNER 12V
TUNER VIDEO IN
GND (V)
VIDEO OUT
EE Ⓗ 12V
REG 5V
CONV OUT
AV Ⓗ
DECODER (L)
DECODER (R)
TUNER Ⓗ
LINE Ⓗ
AUDIO IN (L)
AUDIO IN (R)
GND (AUDIO)
AUDIO OUT (L)
GND (AUDIO)
AUDIO OUT (R)
AUDIO IN (N)
REC VR (L)
TUNER AUDIO IN
REC VR (C)
REC VR (R)
AGC Ⓗ
REG -30V
VIDEO OUT
AUDIO OUT
CH1 (L)
CH2 (R)
VIDEO IN
AUDIO IN
CH1 (L)
CH2 (R)
C4905 2200P
C4906 2200P
R4906 470
R4907 470
R4902 2200
R4903 2200
C4903 100P
C4904 100P
R3901 75
R4904 100
R4905 100
R3902 75
R3909 75
C3904 16V47
C3903 16V22
R3904 4700
C3902 16V22
C3901 16V22
C3906 16V10
C3905 0.01
R3905 100K
R3906 75
R3903 4700
AV 21 PIN JACK
R4915 470
C4912 100P
C4911 100P
R4911 2200
R4910 2200
R4914 470
1 AUDIO OUT CH2
2 AUDIO IN CH2
3 AUDIO OUT CH1
4 AUDIO GND
6 AUDIO IN CH1
8 P.B +12V
17 GND
19 VIDEO OUT
20 VIDEO IN
21 GND
Q4901 2SD636 (VOLTAGE STABILIZER)
R4901 1500
C4901 16V100
C4902 16V100
C4917 50V1
C4918 50V1
C4925 50V2.2
C4924 50V2.2
R3910 75
R4913 220
R4912 220
R4918 220K
R4920 6800
R4919 6800
R4922 2200
R4923 2200
C4928 16V10
C4929 0.01
C4930 0.01
C4927 16V10
C4919 16V10
IC4901 M51132L
BUFFER
AGC
REG
VOLTAGE CONTROL
AGC SELECT
C4920 16V10
C4921 16V22
C4922 50V1
C4923 16V10
R3907 75
R3913 1K
FL3901 VLF0413 or ELB4H020
COLOUR
TEST
AUTO
S3901 VSS0162
L3901 100μ
R3911 1500
C3907 16V10
R3912 3900
R3908 100K
L3903 2.2μ
D3901 MA165
Q3901 2SC2206 (PHASE COMPENSATOR)
IC3902 BA7004
(TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
VCC
GND
L3902 100μ
C3908 16V10
R3914 1500
R3915 560
C3909 16V10
X3901 VSX0099
C3910 0.0033
C3911 0.0033
J4901
1 -30V
2 VR IN CH2
3 IN LINE R (N)
4 IN LINE L (N)
5 VR IN CH1
6 12V (AUDIO)
7 IN TUNER (N)
8 AUDIO IN (N)
9 CH2 AV OUT
10 CH1 AV OUT
11 GND (A3)
12 P.B +12V
13 AV CH2 (IN)
14 AV CH1 (IN)
15 GND (V)
J4951-1 … J4951-15
J4902
16 CH2 (IN)
17 GND (A1)
18 CH1 (IN)
19 GND (A2)
20 LINE Ⓗ
21 TUNER Ⓗ
22 AV Ⓗ
23 CANAL/LINE L
24 CANAL/LINE R
25 TUNER CH2 (IN)
26 TUNER CH1 (IN)
27 TEST Ⓗ
28 REG 12V
30 EE Ⓗ
J4952-16 … J4952-30
J4951
J4901-1 -30V
J4901-2 VR IN CH2
J4901-3 IN LINE R
J4901-4 IN LINE L
J4901-5 VR IN CH1
J4901-6 12V (AUDIO
J4901-7 IN TUNER (
J4901-8 AUDIO (MIX
J4901-9 CH2 AV O
J4901-10 CH1 AV O
J4901-11 GND (A3)
J4901-12 PB +12V
J4901-13 AV CH2 (I
J4901-14 AV CH1 (I
J4901-15 GND (V)
J4952
J4902-16 CH 2 (IN)
J4902-17 GND (A1)
J4902-18 CH 1 (IN)
J4902-19 GND (A2)
J4902-20 LINE Ⓗ
J4902-21 TUNER Ⓗ
J4902-22 AV Ⓗ
J4902-23 CANAL/LIN
J4902-24 CANAL/LIN
J4902-25 TUNER CH2
J4902-26 TUNER CH1
J4902-27 TEST Ⓗ
J4902-28 REG 12V
J4902-30 EE Ⓗ
P4951 (TO OPERA
P6504-1 MIC IN
P6504-2 GND
P6504-3 MIC Ⓗ
P6504-4 AUDIO 12V


SUB INPUT/OUTPUT SELECT PACK C.B.A.
(VEP04174H)
AV 21 PIN JACK
AUDIO IN CH2 (R)
J4951
J4952
J4901
J4902
P4951 (TO OPERATION)
IC 4951
μPD4052
(INPUT SELECT SW)
OUTPUT CTL
LEVEL CONVERTER
IC 4952
AN6558
IC 4953
μPC4558
IC 3951
μPD4001
IC 4954
M5201L
Q3951
2SB641
(P.B. : ON)
Q4951
2SD636
(INV)
-30V
VR IN CH2
IN LINE R (N)
IN LINE L (N)
VR IN CH1
12V (AUDIO)
IN TUNER (N)
AUDIO (MIXOUT)
CH2 AV OUT
CH1 AV OUT
GND (A3)
PB +12V
AV CH2 (IN)
AV CH1 (IN)
GND (V)
CH 2 (IN)
GND (A1)
CH 1 (IN)
GND (A2)
LINE Ⓗ
TUNER Ⓗ
AV Ⓗ
CANAL / LINE L
CANAL / LINE R
TUNER CH2 (IN)
TUNER CH1 (IN)
TEST Ⓗ
REG 12V
EE Ⓗ
MIC IN
GND
MIC Ⓗ
AUDIO 12V
AUDIO OUT CH2
AUDIO IN CH2
AUDIO OUT CH1
AUDIO GND
AUDIO IN CH1
P.B +12V
VIDEO OUT
VIDEO IN
CTL
INA
GND
OUT
INB
VCC
VDD
VSS

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

Front-end circuit board assembly

	4822 214 32573	RF CONVERTER UNIT
	4822 210 10352	TUNER UNIT
X751	4822 242 72491	CRYSTAL OSCILLATOR
X752	4822 242 72491	CRYSTAL OSCILLATOR
BP7001	4822 265 40855	CONNECTOR
P701	4822 265 30387	CONNECTOR 4P
P702	4822 265 40856	CONNECTOR
P703	4822 265 40852	CONNECTOR 12P
C702	4822 124 21533	E.CAP 16V 10 µF
C703	4822 124 21536	E.CAP 50V 2.2 µF
C704	4822 122 33747	CHIP 50V 0.01 µF
C705	4822 124 40836	E.CAP 25V 4.7 µF
C707	4822 124 40839	E.CAP 50V 1 µF
C708	4822 124 22828	E.CAP 16V 47 µF
C709	4822 124 22867	E.CAP 25V 4.7 µF
C710	4822 122 33747	CHIP 50V 0.01 µF
C715	4822 122 32247	C.CAP 50V 0.01 µF
C716	4822 122 33747	CHIP 50V 0.01 µF
C717	4822 122 33747	CHIP 50V 0.01 µF
C718	4822 122 33747	CHIP 50V 0.01 µF
C720	4822 122 33747	CHIP 50V 0.01 µF
C721	4822 124 22865	E.CAP 50V 0.27 µF
C722	4822 122 33747	CHIP 50V 0.01 µF
C723	4822 122 33926	C.CAP CH 50V 12P
C728	4822 122 33747	CHIP 50V 0.01 µF
C730	4822 124 21533	E.CAP 16V 10 µF
C733	4822 124 21533	E.CAP 16V 10 µF
C733	4822 122 32647	CHIP 50V 68P
C734	4822 122 33747	CHIP 50V 0.01 µF
C739	4822 124 40839	E.CAP 50V 1 µF
C740	4822 122 33747	CHIP 50V 0.01 µF
C741	4822 124 21533	E.CAP 16V 10 µF
C742	4822 122 33919	CHIP 50V 3P
C744	4822 124 21561	E.CAP 50V 0.47 µF
C745	4822 122 33928	CHIP 50V 68P
C747	4822 122 33747	CHIP 50V 0.01 µF
C748	4822 124 22828	E.CAP 16V 47 µF
C749	4822 124 21533	E.CAP 16V 10 µF
C750	4822 121 42255	P.CAP 50V 0.018 µF
C752	4822 122 33905	CHIP 50V 1000P
C753	4822 121 42146	P.CAP 50V 0.01 µF
C754	4822 124 22828	E.CAP 16V 47 µF
C755	4822 122 33927	C.CAP CH 50V 39P
C756	4822 122 33926	C.CAP CH 50V 12P
C758	4822 121 42146	P.CAP 50V 0.01 µF
C759	4822 124 22828	E.CAP 16V 47 µF
C760	4822 122 33927	C.CAP CH 50V 39P
C761	4822 122 33926	C.CAP CH 50V 12P
C762	4822 121 51446	P.CAP 50V 0.039 µF
C763	4822 122 33905	CHIP 50V 1000P
C764	4822 124 40836	E.CAP 25V 4.7 µF
C765	4822 124 22828	E.CAP 16V 47 µF
C766	4822 122 33747	CHIP 50V 0.01 µF
C768	4822 122 33747	CHIP 50V 0.01 µF
C775	4822 122 33926	C.CAP CH 50V 12P
C781	4822 122 33905	CHIP 50V 1000P
C782	4822 121 42179	P.CAP 50V 0.1 µF
C783	4822 121 42179	P.CAP 50V 0.1 µF
C7302	4822 124 21567	E.CAP 16V 10 µF
C7303	4822 121 51446	P.CAP 50V 0.039 µF
C7304	4822 124 21567	E.CAP 16V 10 µF
C7305	4822 121 42168	P.CAP 50V 0.047 µF
C7306	4822 121 42303	P.CAP 50V 1000P
C7307	4822 121 42267	P.CAP 50V 8200P
C7308	4822 121 42303	P.CAP 50V 1000P
C7309	4822 121 42253	P.CAP 50V 1500P
C7310	4822 124 21563	E.CAP 16V 10 µF
C7311	4822 124 22868	E.CAP 50V 0.47 µF
C7312	4822 121 42165	P.CAP 50V 0.22 µF
C7313	4822 121 42179	P.CAP 50V 0.1 µF
C7314	4822 121 42165	P.CAP 50V 0.22 µF
C7315	4822 121 42179	P.CAP 50V 0.1 µF
C7316	4822 121 42165	P.CAP 50V 0.22 µF
C7317	4822 124 21556	E.CAP 16V 100 µF
C7318	4822 122 33747	CHIP 50V 0.01 µF
C7319	4822 124 22828	E.CAP 16V 47 µF
C7320	4822 124 21533	E.CAP 16V 10 µF
C7321	4822 124 21533	E.CAP 16V 10 µF
C7323	4822 121 42266	P.CAP 50V 8200P
C7324	4822 121 42266	P.CAP 50V 8200P
C7331	4822 121 51449	P.CAP 50V 0.47 µF
C7651	4822 124 21533	E.CAP 16V 10 µF
C7652	4822 124 40856	E.CAP 16V 33 µF
C7653	4822 121 51451	P.CAP 50V 3900P
C7654	4822 121 42252	P.CAP 50V 0.01 µF
C7655	4822 124 40839	E.CAP 50V 1 µF
C7656	4822 124 40839	E.CAP 50V 1 µF
C7657	4822 122 32247	C.CAP 50V 0.01 µF
C7658	4822 121 42219	P.CAP 100V 5600P
C7659	4822 121 51445	P.CAP 50V 2700P
D710	4822 130 81386	MA3100L
D712	4822 130 81385	MA28WA
D771	4822 130 31742	MA151WK
D7301	4822 130 32865	MA151A
D7302	4822 130 32865	MA151A
IC701	4822 209 60561	M51366SP
IC751	4822 209 82188	AN5215
IC752	4822 209 82188	AN5215
IC7301	4822 209 60564	TDA3803A
IC7651	4822 209 82433	AN5421

L701,0	4822 157 52085
L703,0	4822 157 52163
L712	4822 157 60008
L714	4822 157 60009
L715	4822 157 52085
L716	4822 157 51986
L717,1	4822 157 52085
L719	4822 157 52083
L7301	4822 157 51979
L7304	4822 157 51974

Q703	4822 130 42669	2SD601
Q710	4822 130 42258	2SC2377
Q711	4822 130 42468	2SC2404
Q712	4822 130 41324	2SD638
Q713	4822 130 42668	2SD1328
Q714	4822 130 42669	2SD601
Q715	4822 130 42669	2SD601
Q771	4822 130 42669	2SD601
Q772	4822 130 60345	2SK198
Q773	4822 130 60345	2SK198
Q7301	4822 130 42669	2SD601
Q7302	4822 130 42668	2SD1328
Q7303	4822 130 42668	2SD1328
QR701	4822 130 61488	UN2214
QR702	4822 111 90815	UN2213
QR711	4822 111 90814	UN2212
QR712	4822 111 90814	UN2212
QR713	4822 111 91224	UN2211
QR714	4822 130 61488	UN2214
QR715	4822 130 61488	UN2214
QR7312	4822 111 91224	UN2211

R707	4822 116 52257	CHIP 22 kΩ
R712	4822 116 90464	CHIP 6.8 kΩ
R713	4822 116 90463	CHIP 680
R714	4822 116 81417	CHIP. 2W 33
R715	4822 116 80882	CHIP 270
R716	4822 116 90458	CHIP 1.5 kΩ
R717	4822 111 91526	CHIP 3.3 kΩ
R718	4822 116 81425	CHIP 750 kΩ
R719	4822 116 90464	CHIP 6.8 kΩ
R720	4822 111 91655	CHIP 8.2 kΩ
R721	4822 111 91526	CHIP 3.3 kΩ
R722	4822 111 91527	CHIP 3.9 kΩ
R723	4822 111 91521	CHIP 180 kΩ
R724	4822 116 90441	CHIP 100
R725	4822 116 81383	CHIP 1.8 kΩ
R726	4822 111 91532	CHIP 4.7 kΩ
R728	4822 116 52224	CHIP 470
R729	4822 116 90446	CHIP 470
R731	4822 116 81383	CHIP 1.8 kΩ
R732	4822 116 81423	CHIP 33

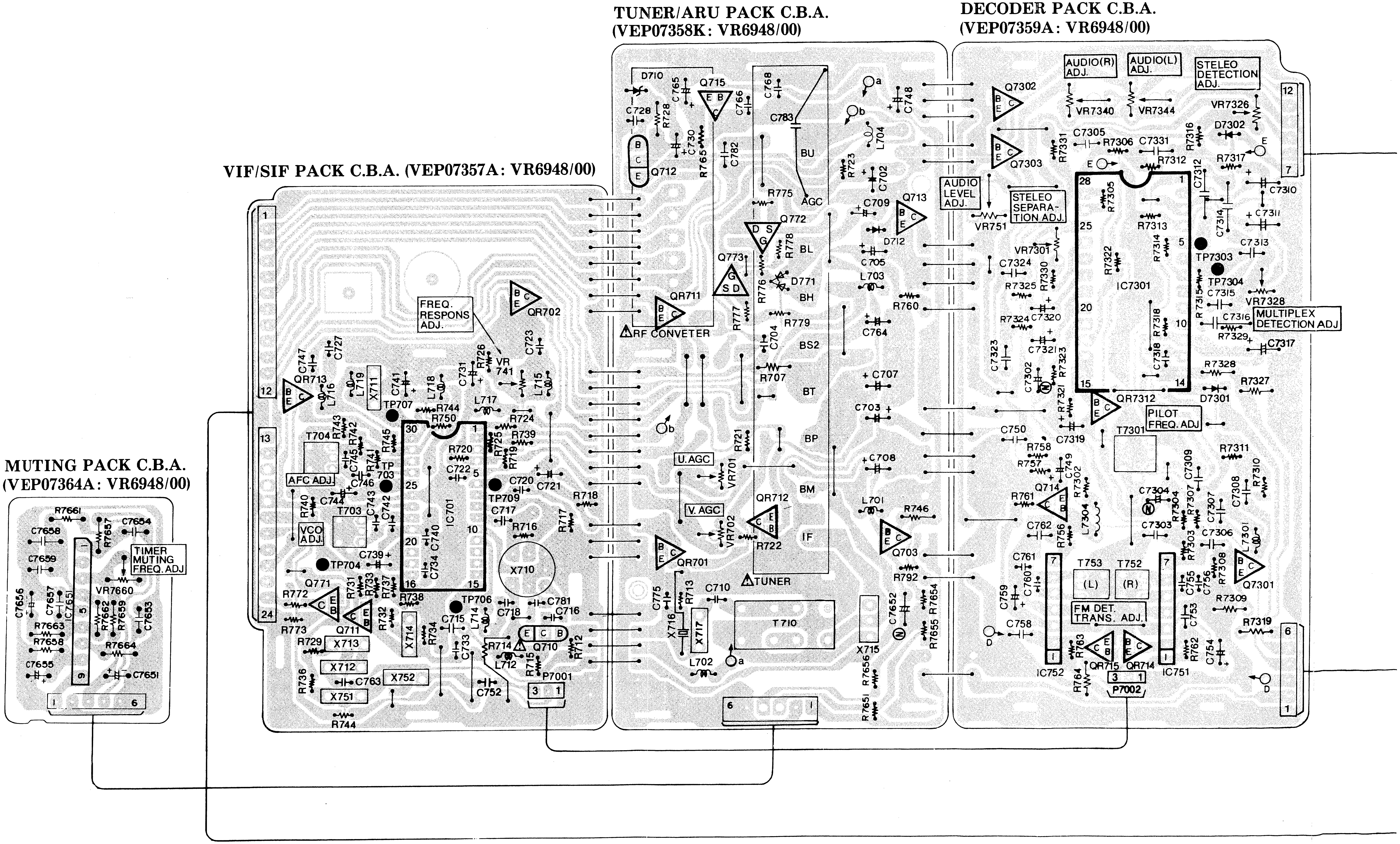
R733	4822 116 81117	CHIP 10 kΩ
R734	4822 111 91516	CHIP 1 kΩ
R736	4822 116 90446	CHIP 470
R737	4822 116 81403	CHIP 270 kΩ
R738	4822 116 90345	CHIP 330 kΩ
R739	4822 116 90446	CHIP 470
R740	4822 111 91661	CHIP 47 kΩ
R741	4822 111 91449	CHIP 2.7 kΩ
R742	4822 111 91449	CHIP 2.7 kΩ
R743	4822 116 81424	CHIP 47
R744	4822 116 81034	CHIP 820
R745	4822 111 91501	CHIP 330
R746	4822 116 52213	CHIP 180
R750	4822 116 81383	CHIP 1.8 kΩ
R756	4822 116 81383	CHIP 1.8 kΩ
R757	4822 111 91522	CHIP 2.2 kΩ
R758	4822 116 90463	CHIP 680
R760	4822 111 91516	CHIP 1 kΩ
R761	4822 116 90339	CHIP 220
R762	4822 116 90446	CHIP 470
R763	4822 116 90446	CHIP 470
R764	4822 116 52256	CHIP 2.2 kΩ
R765	4822 116 90458	CHIP 1.5 kΩ
R772	4822 111 91516	CHIP 1 kΩ
R773	4822 116 81117	CHIP 10 kΩ
R774	4822 116 81017	CHIP 33 kΩ
R775	4822 116 90447	CHIP 470 kΩ
R776	4822 111 91651	CHIP 1M
R777	4822 116 90443	CHIP 180 kΩ
R778	4822 111 91651	CHIP 1M
R779	4822 111 91518	CHIP 100 kΩ
R792	4822 116 81422	CHIP 12
R7302	4822 111 91527	CHIP 3.9 kΩ
R7303	4822 116 81383	CHIP 1.8 kΩ
R7304	4822 111 91527	CHIP 3.9 kΩ
R7305	4822 111 91655	CHIP 8.2 kΩ
R7306	4822 116 90446	CHIP 470
R7307	4822 111 91518	CHIP 100 kΩ
R7308	4822 116 90342	CHIP 27 kΩ
R7309	4822 116 52204	CHIP 1 kΩ
R7310	4822 116 90447	CHIP 470 kΩ
R7311	4822 111 91535	CHIP 5.6 kΩ
R7312	4822 111 91535	CHIP 56 kΩ
R7313	4822 116 90348	CHIP 820 kΩ
R7314	4822 116 80881	CHIP 220 kΩ
R7315	4822 116 80881	CHIP 220 kΩ
R7316	4822 111 91661	CHIP 47 kΩ
R7317	4822 116 90445	CHIP 39 kΩ
R7318	4822 111 91498	CHIP 15 kΩ
R7319	4822 116 52204	CHIP 1 kΩ
R7321	4822 111 91516	CHIP 1 kΩ
R7322	4822 111 91516	CHIP 1 kΩ
R7323	4822 111 91526	CHIP 3.3 kΩ
R7324	4822 116 81034	CHIP 820
R7325	4822 116 81034	CHIP 820
R7327	4822 116 81414	CHIP 750
R7328	4822 116 52207	CHIP 1.2 kΩ
R7329	4822 111 91516	CHIP 1 kΩ
R7330	4822 111 91526	CHIP 3.3 kΩ
R7331	4822 111 91449	CHIP 2.7 kΩ

R7651	4822 116 81117	CHIP 10 kΩ
R7654	4822 111 91535	CHIP 5.6 kΩ
R7655	4822 111 91532	CHIP 4.7 kΩ
R7656	4822 116 80879	CHIP 150
R7657	4822 116 52234	CHIP 100 kΩ
R7658	4822 116 52277	CHIP 39 kΩ
R7659	4822 116 52303	CHIP 8.2 kΩ
R7661	4822 116 52289	CHIP 5.6 kΩ
R7662	4822 116 52277	CHIP 39 kΩ
R7663	4822 116 52256	CHIP 2.2 kΩ
R7664	4822 116 52269	CHIP 3.3 kΩ

VR701	4822 101 30603	V.RES 2 kΩ
VR702	4822 101 30603	V.RES 2 kΩ
VR741	4822 100 10845	V.RES 10 kΩ
VR751	4822 101 30605	V.RES 5 kΩ
VR7301	4822 100 10726	V.RES 10 kΩ
VR7326	4822 101 30606	V.RES 500
VR7328	4822 101 30595	V.RES 500
VR7340	4822 101 30604	V.RES 10 kΩ
VR7344	4822 101 30604	V.RES 10 kΩ
VR7660	4822 100 10736	V.RES 2 kΩ

T703	4822 156 11114	TRANSFORMER
T704	4822 156 11113	TRANSFORMER
T710	4822 242 72494	FILTER
T7301	4822 142 40296	IF TRANSFORMER
T752	4822 156 11111	TRANSFORMER
T753	4822 156 11112	TRANSFORMER

X710	4822 242 72487	SAW FILTER
X711	4822 242 72489	FILTER
X712	4822 242 72488	FILTER
X713	4822 242 72488	FILTER
X714	4822 242 70908	FILTER
X715	4822 242 72492	FILTER
X716	4822 242 72486	FILTER
X717	4822 242 72493	FILTER



TUNER/ARU PACK C.B.A.
(VEP07358K: VR6948/00)

DECODER PACK C.B.A.
(VEP07359A: VR6948/00)

VIF/SIF PACK C.B.A. (VEP07357A: VR6948/00)

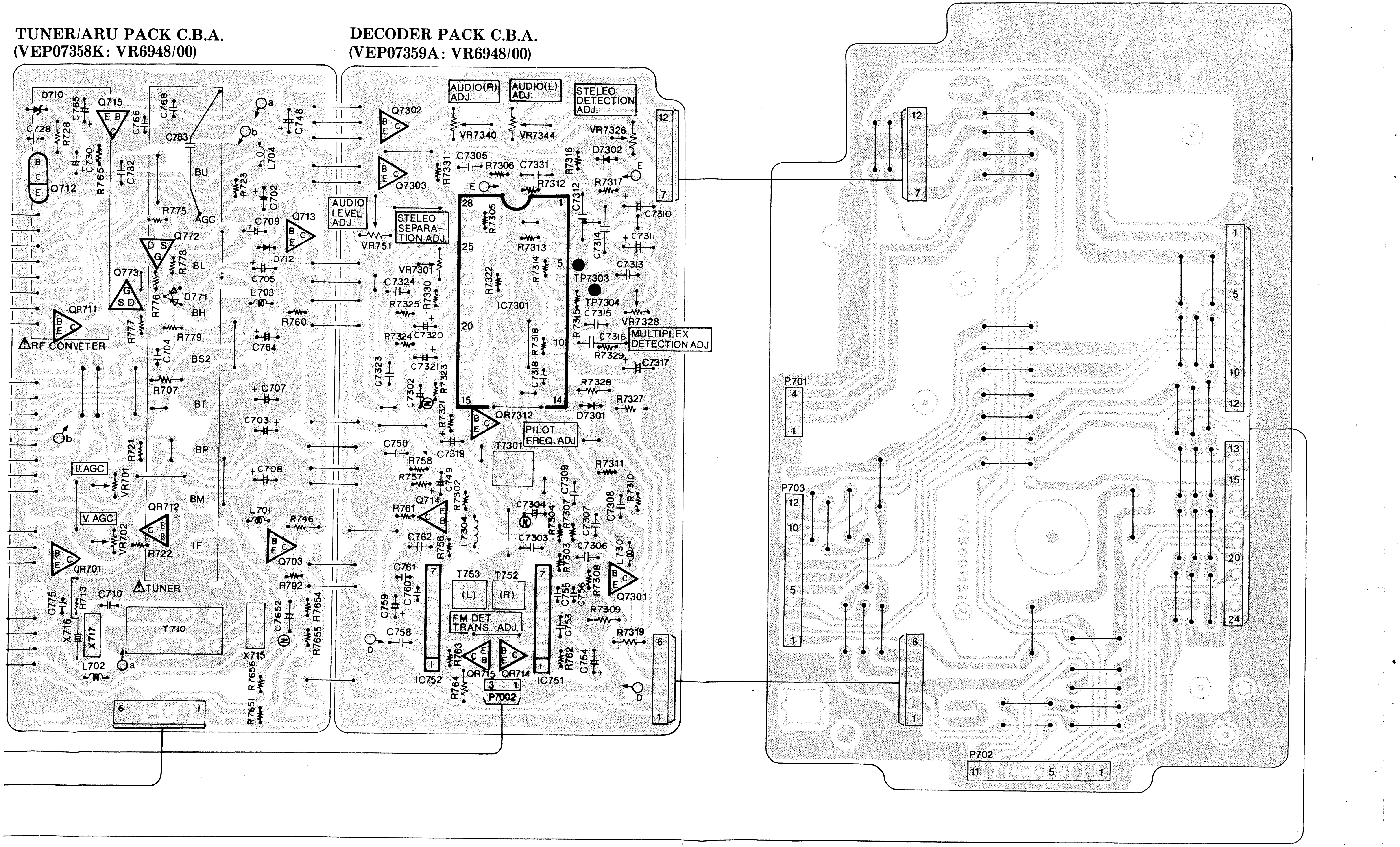
MUTING PACK C.B.A.
(VEP07364A: VR6948/00)

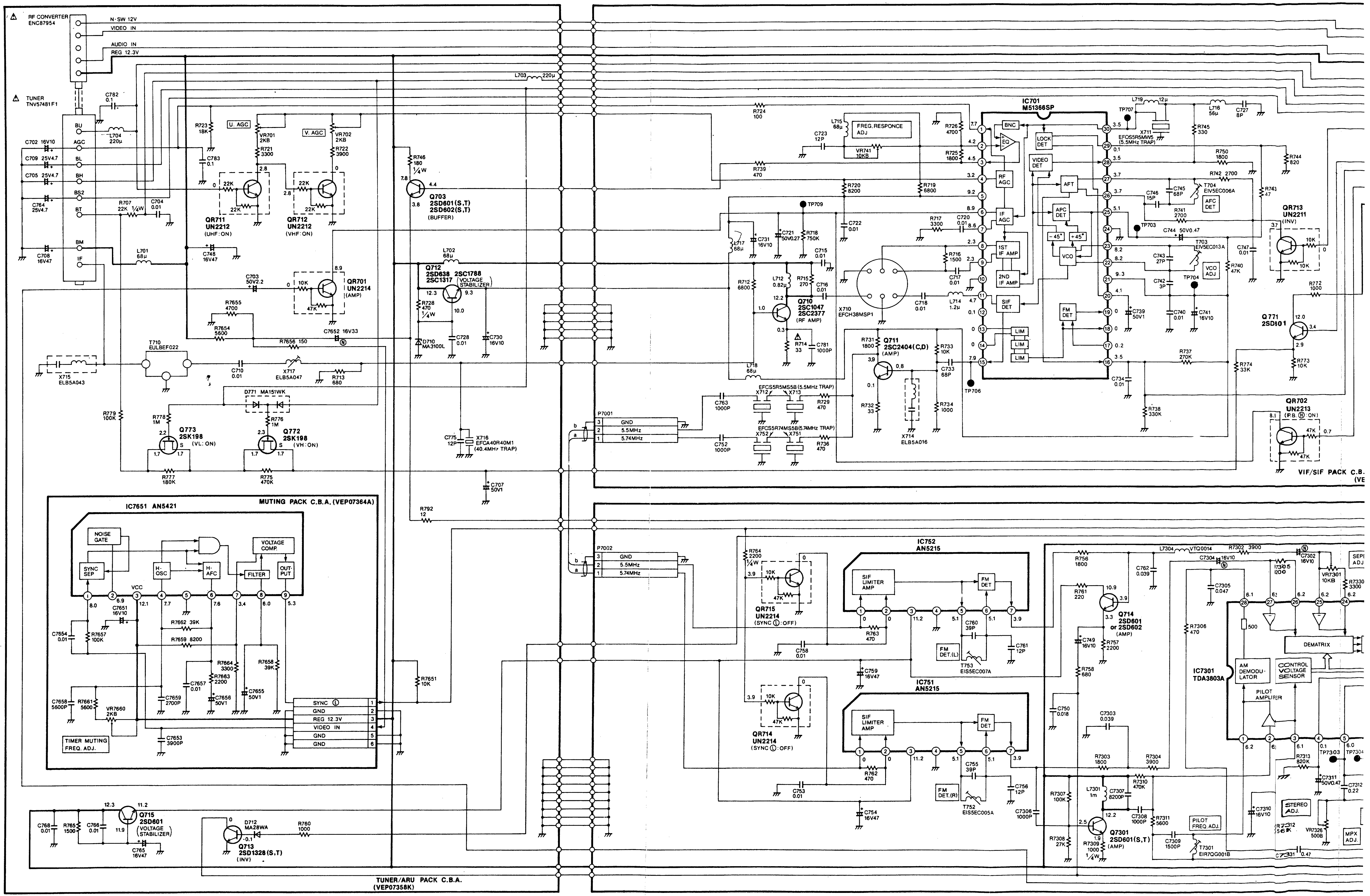
AUDIO(R) ADJ.
AUDIO(L) ADJ.
STELEO DETECTION ADJ.
VR7340
VR7344
VR7326
AUDIO LEVEL ADJ.
STELEO SEPARA-TION ADJ.
VR751
VR7301
IC7301
TP7303
TP7304
VR7328
MULTIPLEX DETECTION ADJ
PILOT FREQ. ADJ
T7301
FM DET. TRANS. ADJ.
T753 (L)
T752 (R)
IC752
IC751
P7002
Q7302
Q7303
Q7301
QR7312
QR715
QR714
Q714
D710
Q715
Q712
Q772
Q773
QR711
RF CONVETER
BU
AGC
BL
BH
BS2
BT
BP
BM
IF
U.AGC
V.AGC
VR701
VR702
QR712
QR701
TUNER
T710
X716
X717
X715
Q713
Q703
FREQ. RESPONS ADJ.
VR 741
QR702
QR713
X711
TP707
IC701
TP709
TP703
TP704
TP706
AFC ADJ.
VCO ADJ.
T704
T703
X710
Q771
Q711
Q710
P7001
X713
X712
X752
X751
X714
TIMER MUTING FREQ. ADJ
VR7660
IC7651

TV DEMODULATOR C.B.A. (VEP00H51R: VR6948/00)

TUNER/ARU PACK C.B.A. (VEP07358K: VR6948/00)

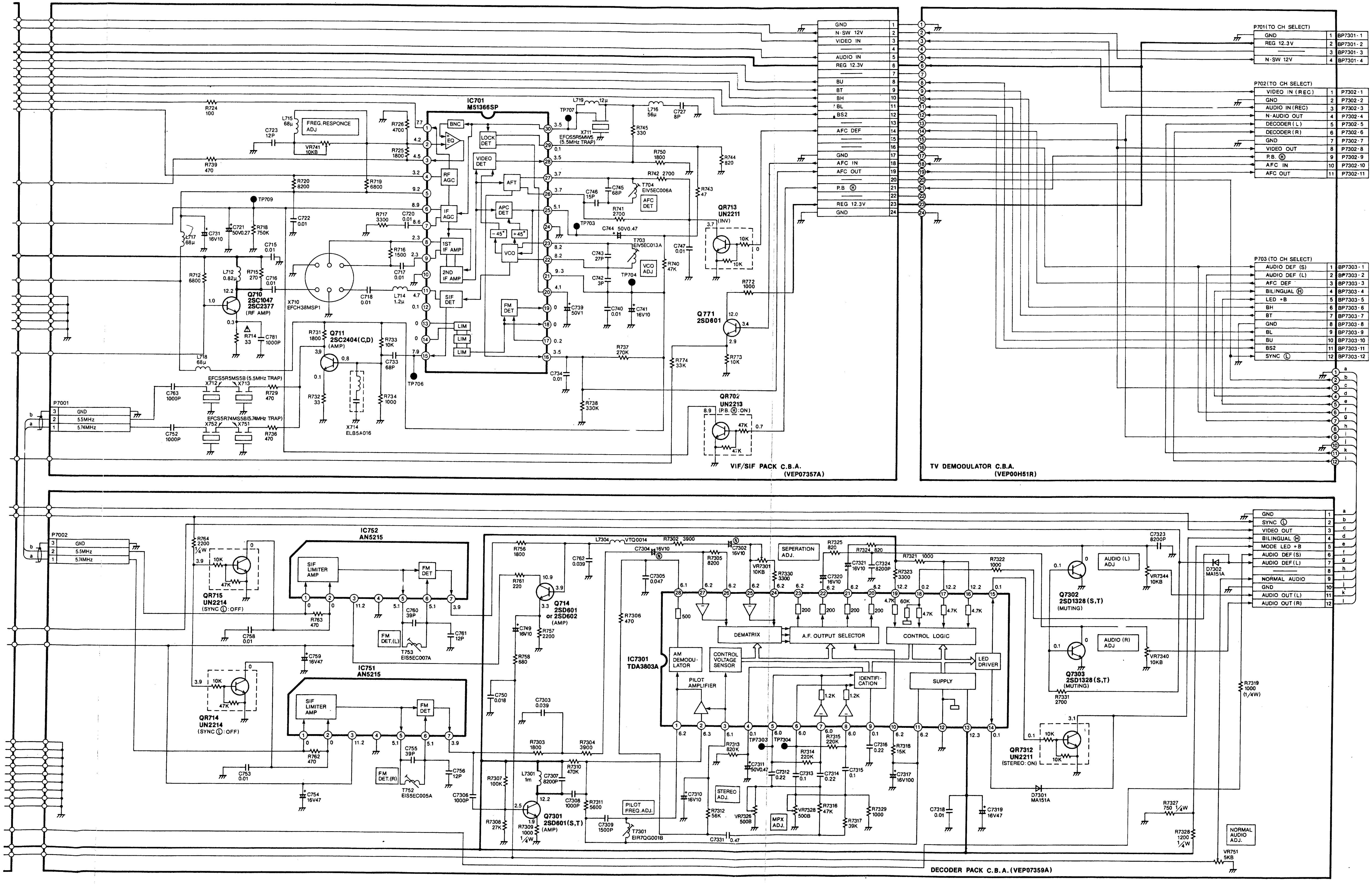
DECODER PACK C.B.A. (VEP07359A: VR6948/00)


D710
Q715
C765
C728
R728
C730
R765
C782
C766
C768
C783
BU
Q712
R775
AGC
Q772
R778
BL
Q773
R776
D771
BH
QR711
R777
R779
RF CONVETER
C704
BS2
R707
BT
b
R721
BP
U.AGC
VR701
BM
QR712
V.AGC
VR702
R722
IF
QR701
TUNER
C775
R713
C710
X716
X717
T710
L702
a
6
1
a
b
C748
L704
R723
C702
C709
Q713
D712
C705
L703
R760
C764
C707
C703
C708
L701
R746
Q703
R792
C7652
R7654
R7655
X715
R7656
R7651
AUDIO(R) ADJ.
AUDIO(L) ADJ.
STELEO DETECTION ADJ.
Q7302
VR7340
VR7344
VR7326
Q7303
R7331
C7305
R7306
C7331
R7316
D7302
E
R7317
R7312
C7312
12
7
AUDIO LEVEL ADJ.
STELEO SEPARA-TION ADJ.
VR751
28
1
R7305
C7310
C7314
C7311
R7313
25
5
VR7301
R7314
TP7303
C7313
C7324
R7322
TP7304
R7325
R7330
IC7301
R7315
C7315
VR7328
20
C7316
MULTIPLEX DETECTION ADJ
R7324
C7320
R7318
10
R7329
C7321
C7317
C7323
R7323
C7318
C7302
R7328
R7327
15
14
D7301
R7321
QR7312
PILOT FREQ. ADJ
C750
C7319
T7301
R758
R7311
R757
C749
C7309
R7310
R761
Q714
R7302
C7304
C7308
L7304
R7304
R7307
C7307
C762
C7303
L7301
R756
C7306
R7303
C761
T753
T752
(L)
(R)
R7308
Q7301
C760
C755
C756
C759
R7309
FM DET. TRANS. ADJ.
C753
R7319
C758
D
R763
QR715
QR714
R762
C754
IC752
IC751
R764
P7002
3
1
6
1
D
12
7
1
5
10
12
13
15
20
24
P701
4
1
P703
12
10
5
1
6
1
P702
11
5
1
VJB00H51S


RF CONVERTER
ENC87954
N-SW 12V
VIDEO IN
AUDIO IN
REG 12.3V
TUNER
TNV57481F1
BU
AGC
BL
BH
BS2
BT
BM
IF
L703 220μ
L704 220μ
U. AGC
V. AGC
VR701 2KB
VR702 2KB
R721 3300
R722 3900
QR711
UN2212
(UHF:ON)
QR712
UN2212
(VHF:ON)
QR701
UN2214
(AMP)
Q703
2SD601(S,T)
2SD602(S,T)
(BUFFER)
Q712
2SD638 2SC1788
2SC1317
(VOLTAGE STABILIZER)
D710
MA3100L
T710
EULBEF022
X715
ELB5A043
X717
ELB5A047
D771 MA151WK
Q773
2SK198
(VL:ON)
Q772
2SK198
(VH:ON)
X716
EFCA40R40M1
(40.4MHz TRAP)
P7001
GND
5.5MHz
5.74MHz
P7002
IC701
M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
IF AGC
AFT
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
FREQ. RESPONCE ADJ
VR741 10KB
TP709
TP707
TP703
TP704
TP706
X711
EFCS5R5MW5
(5.5MHz TRAP)
T704
EIV5EC006A
AFC DET
T703
EIV5EC013A
VCO ADJ
Q710
2SC1047
2SC2377
(RF AMP)
X710
EFCH38MSP1
Q711
2SC2404(C,D)
(AMP)
EFCS5R5MS5B (5.5MHz TRAP)
EFCS5R74MS5B (5.74MHz TRAP)
X714
ELB5A016
QR713
UN2211
(INV)
Q771
2SD601
QR702
UN2213
(P.B. Ⓡ:ON)
VIF/SIF PACK C.B.
IC7651 AN5421
MUTING PACK C.B.A. (VEP07364A)
NOISE GATE
SYNC SEP
H-OSC
H-AFC
VOLTAGE COMP.
FILTER
OUT-PUT
VCC
VR7660 2KB
TIMER MUTING FREQ. ADJ.
SYNC Ⓛ
GND
REG 12.3V
VIDEO IN
GND
GND
QR715
UN2214
(SYNC Ⓛ:OFF)
QR714
UN2214
(SYNC Ⓛ:OFF)
IC752
AN5215
IC751
AN5215
SIF LIMITER AMP
FM DET
FM DET.(L)
FM DET.(R)
T753
EIS5EC007A
T752
EIS5EC005A
Q714
2SD601
or 2SD602
(AMP)
IC7301
TDA3803A
AM DEMODU-LATOR
PILOT AMPLIFIER
DEMATRIX
CONTROL VOLTAGE SENSOR
STEREO ADJ.
MPX ADJ
PILOT FREQ. ADJ.
T7301
EIR7QG001B
Q7301
2SD601(S,T)
(AMP)
VR7301 10KB
VR7326 500B
TP7303
Q715
2SD601
(VOLTAGE STABILIZER)
Q713
2SD1328(S,T)
(INV)
D712
MA28WA
TUNER/ARU PACK C.B.A.
(VEP07358K)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

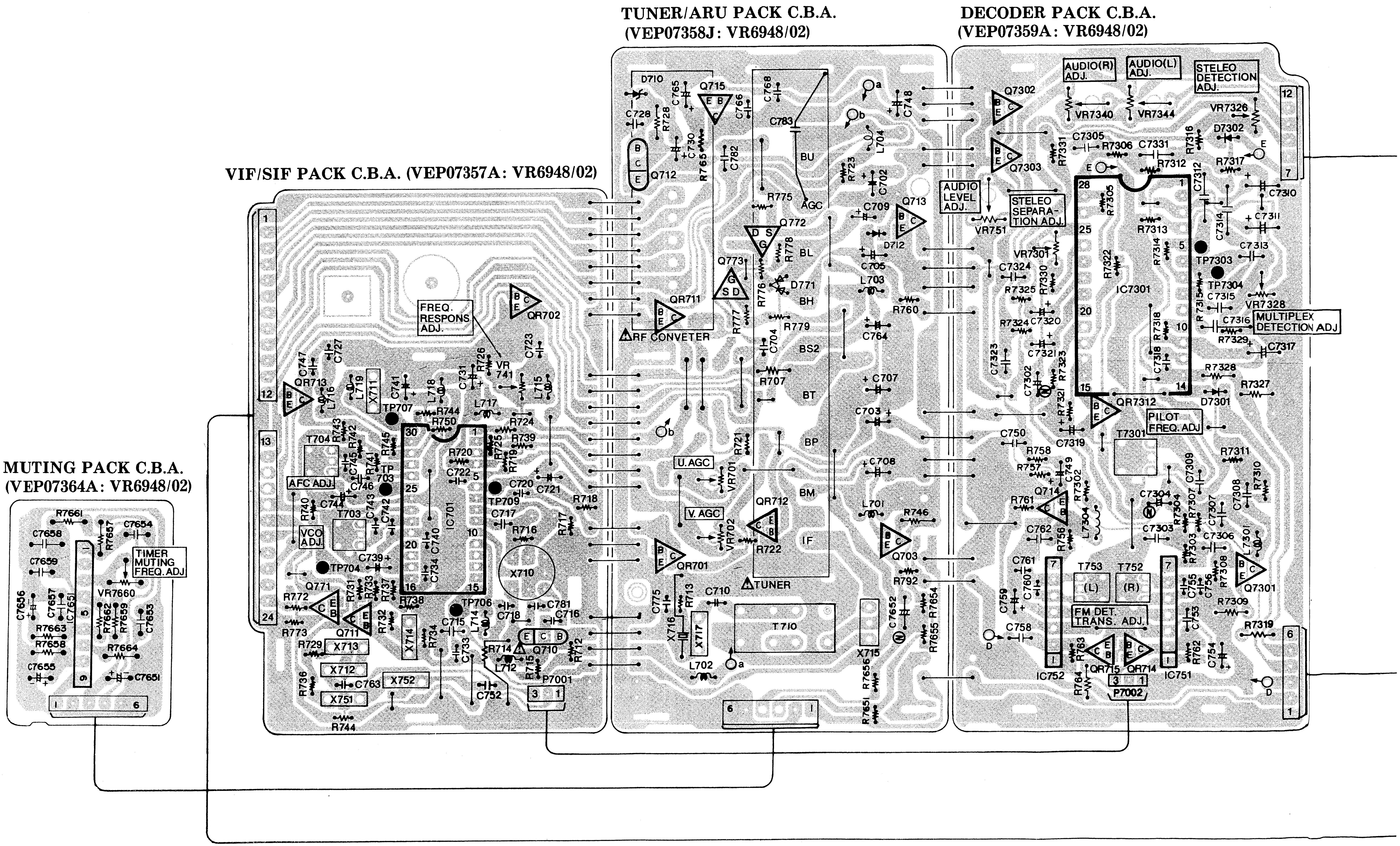
NOTE: DO NOT USE ANY PART NUMBER SHO
SCHEMATIC DIAGRAM FOR ORDERING.
ORDER A PART, PLEASE REFER TO PAR


IC701
M51366SP
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
LOCK DET
VIDEO DET
AFT
APC DET
VCO
FM DET
FREQ. RESPONCE ADJ
AFC DET
VCO ADJ
Q710 2SC1047 2SC2377 (RF AMP)
Q711 2SC2404(C,D) (AMP)
QR713 UN2211 (INV)
Q771 2SD601
QR702 UN2213 (P.B. Ⓗ :ON)
P7001
GND
5.5MHz
5.74MHz
VIF/SIF PACK C.B.A. (VEP07357A)
GND
N-SW 12V
VIDEO IN
AUDIO IN
REG 12.3V
BU
BT
BH
BL
BS2
AFC DEF
GND
AFC IN
AFC OUT
P.B Ⓗ
REG 12.3V
GND
TV DEMODULATOR C.B.A. (VEP00H51R)
P701 (TO CH SELECT)
GND
REG 12.3V
N-SW 12V
BP7301-1
BP7301-2
BP7301-3
BP7301-4
P702 (TO CH SELECT)
VIDEO IN (REC)
GND
AUDIO IN (REC)
N-AUDIO OUT
DECODER (L)
DECODER (R)
GND
VIDEO OUT
P.B. Ⓗ
AFC IN
AFC OUT
P7302-1 … P7302-11
P703 (TO CH SELECT)
AUDIO DEF (S)
AUDIO DEF (L)
AFC DEF
BILINGUAL Ⓗ
LED +B
BH
BT
GND
BL
BU
BS2
SYNC Ⓛ
BP7303-1 … BP7303-12
P7002
GND
5.5MHz
5.74MHz
IC752 AN5215
IC751 AN5215
SIF LIMITER AMP
FM DET
FM DET.(L)
FM DET.(R)
QR715 UN2214 (SYNC Ⓛ:OFF)
QR714 UN2214 (SYNC Ⓛ:OFF)
Q714 2SD601 or 2SD602 (AMP)
Q7301 2SD601(S,T) (AMP)
IC7301 TDA3803A
SEPERATION ADJ.
DEMATRIX
A.F. OUTPUT SELECTOR
CONTROL LOGIC
AM DEMODULATOR
CONTROL VOLTAGE SENSOR
LED DRIVER
PILOT AMPLIFIER
IDENTIFICATION
SUPPLY
STEREO ADJ.
MPX ADJ.
PILOT FREQ. ADJ.
AUDIO (L) ADJ
AUDIO (R) ADJ
Q7302 2SD1328(S,T) (MUTING)
Q7303 2SD1328(S,T) (MUTING)
QR7312 UN2211 (STEREO: ON)
D7301 MA151A
D7302 MA151A
NORMAL AUDIO ADJ.
VR751 5KB
GND
SYNC Ⓛ
VIDEO OUT
BILINGUAL Ⓗ
MODE LED +B
AUDIO DEF (S)
AUDIO DEF (L)
NORMAL AUDIO
GND
AUDIO OUT (L)
AUDIO OUT (R)
DECODER PACK C.B.A. (VEP07359A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.



TUNER/ARU PACK C.B.A. (VEP07358J: VR6948/02)

DECODER PACK C.B.A. (VEP07359A: VR6948/02)

VIF/SIF PACK C.B.A. (VEP07357A: VR6948/02)

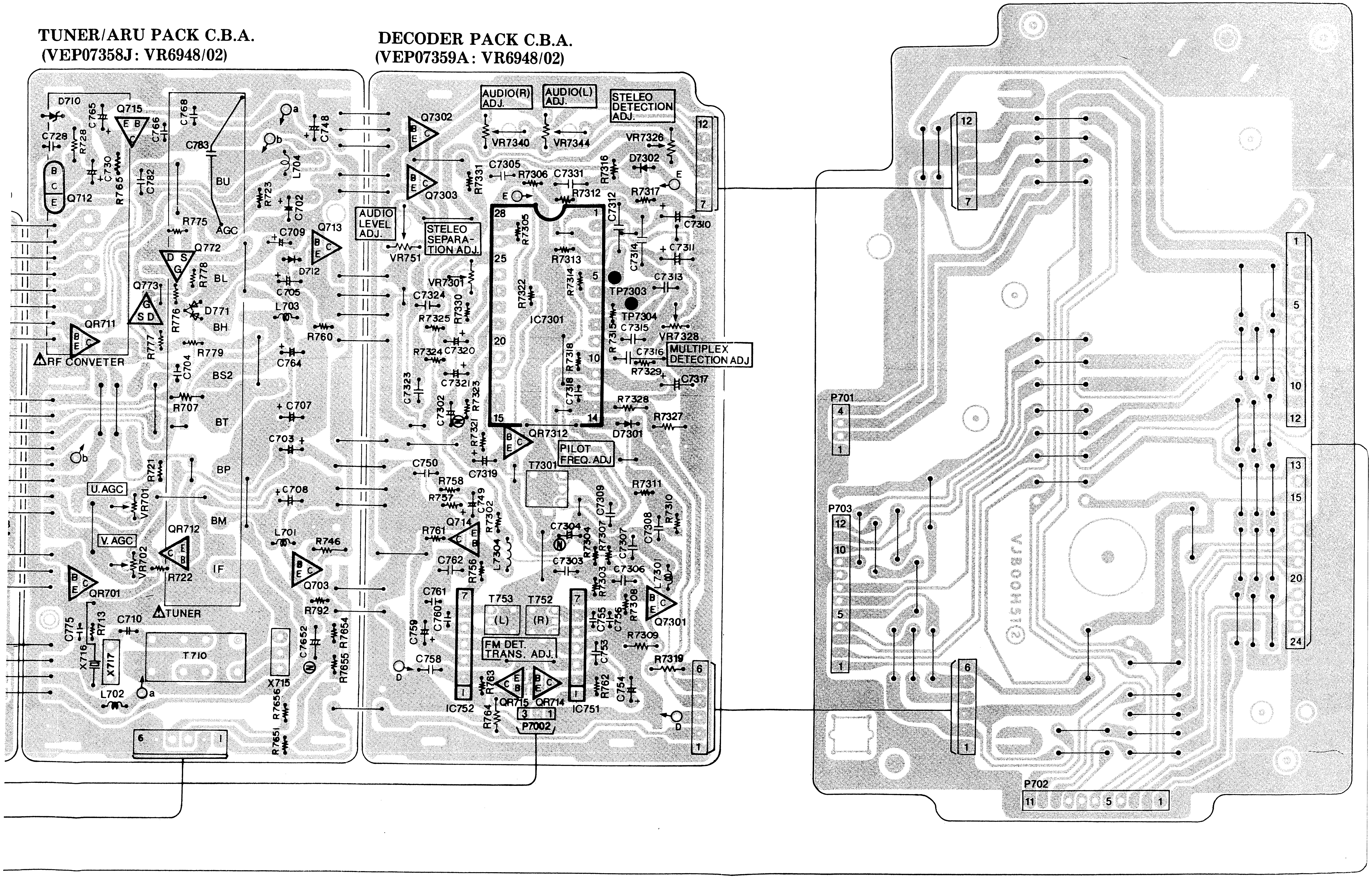
MUTING PACK C.B.A. (VEP07364A: VR6948/02)

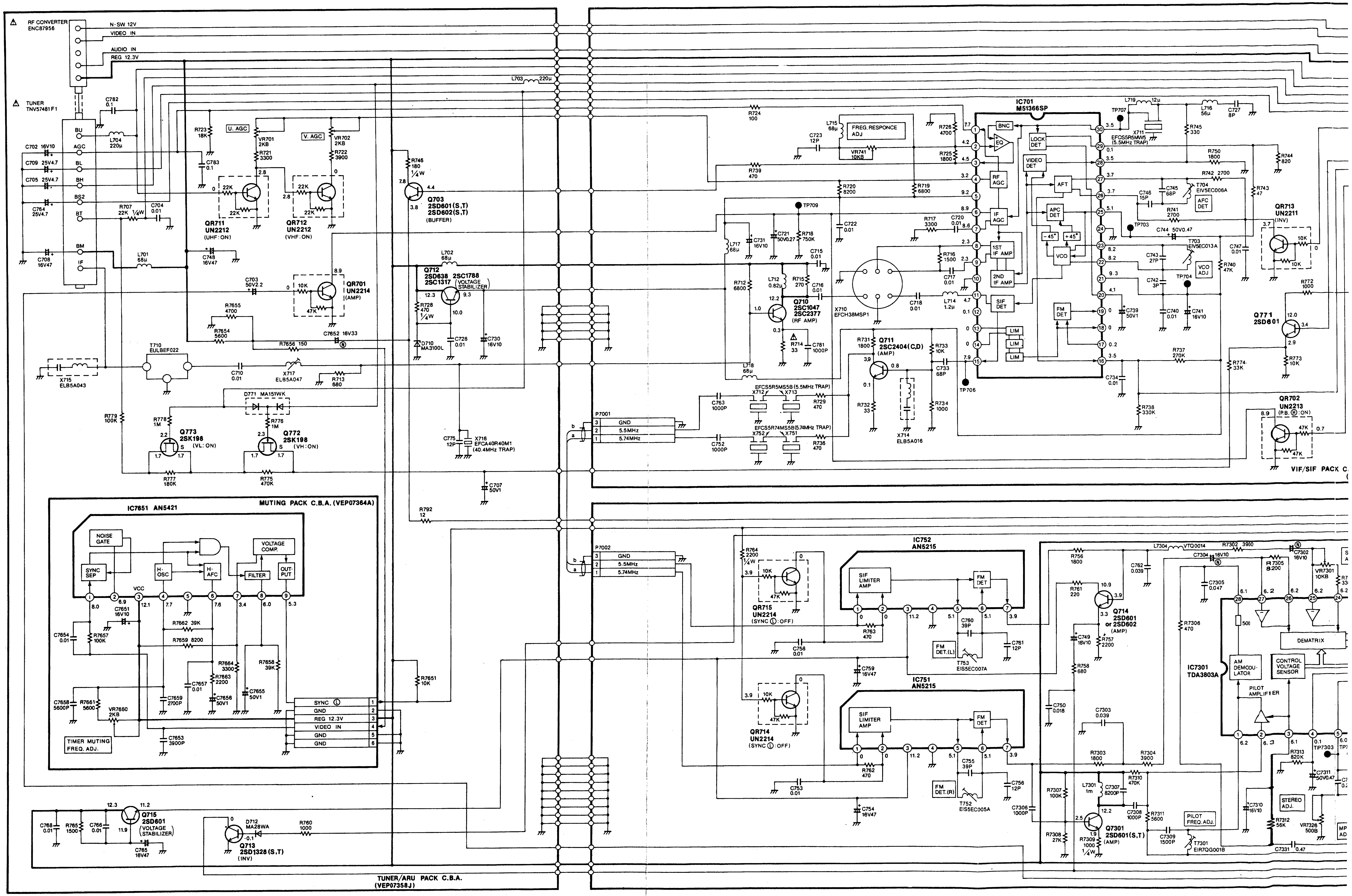
AUDIO(R) ADJ.
AUDIO(L) ADJ.
STELEO DETECTION ADJ.
VR7340
VR7344
VR7326
Q7302
Q7303
D7302
R7317
R7316
R7331
C7305
R7306
C7331
R7312
C7312
C7310
C7311
C7313
C7314
AUDIO LEVEL ADJ.
STELEO SEPARA-TION ADJ.
VR751
VR7301
R7305
R7313
R7314
R7322
IC7301
TP7303
TP7304
C7315
VR7328
C7316
MULTIPLEX DETECTION ADJ
R7329
C7317
C7324
R7330
R7325
C7320
R7324
C7321
C7323
R7318
C7318
C7302
R7323
R7321
R7328
R7327
D7301
QR7312
PILOT FREQ. ADJ
C7319
T7301
R7311
C7309
R7310
C7308
C7307
R7307
R7304
C7304
C7303
R7303
C7306
L7301
R7308
Q7301
R7309
R7319
C750
R758
R757
C749
R7302
Q714
R761
L7304
R756
C762
C761
C7601
C759
C758
T753
(L)
T752
(R)
FM DET. TRANS. ADJ.
C755
C756
C753
C754
R762
R763
R764
QR715
QR714
P7002
IC752
IC751
D710
C765
Q715
C766
C768
C728
R728
C730
R765
C782
C783
C748
L704
BU
Q712
R723
C702
R775
AGC
C709
Q713
Q772
D712
R778
BL
Q773
C705
L703
D771
BH
R776
R777
R760
QR711
RF CONVETER
C764
R779
C704
BS2
C707
R707
BT
C703
BP
R721
U.AGC
VR701
C708
V.AGC
VR702
BM
QR712
L701
R746
R722
IF
Q703
QR701
R792
R7654
C7652
TUNER
C775
R713
C710
X716
X717
T710
X715
L702
R7655
R7656
R7651
FREQ. RESPONS ADJ.
QR702
C723
C747
C727
QR713
L716
L719
X711
C741
L718
C731
R726
VR741
L715
TP707
R744
L717
R750
R724
R743
R742
T704
R741
R745
C745
R720
R739
R725
R719
C722
C720
C721
AFC ADJ.
TP703
C746
C744
R740
C743
C742
T703
VCO ADJ.
IC701
C740
C734
TP709
C717
R718
R716
R717
X710
TP704
C739
Q771
R772
R731
R733
R737
R738
TP706
C781
C716
C718
R773
Q711
R732
C715
X714
R734
R729
X713
C733
R714
L714
Q710
R712
X712
C763
X752
R715
P7001
R736
X751
C752
R744
R7661
C7658
R7657
C7654
TIMER MUTING FREQ. ADJ
C7659
VR7660
C7656
C7657
IC7651
R7662
R7659
C7653
R7663
R7658
R7664
C7655
C7651

TV DEMODULATOR C.B.A. (VEP00H51P: VR6948/02)

TUNER/ARU PACK C.B.A.
(VEP07358J: VR6948/02)

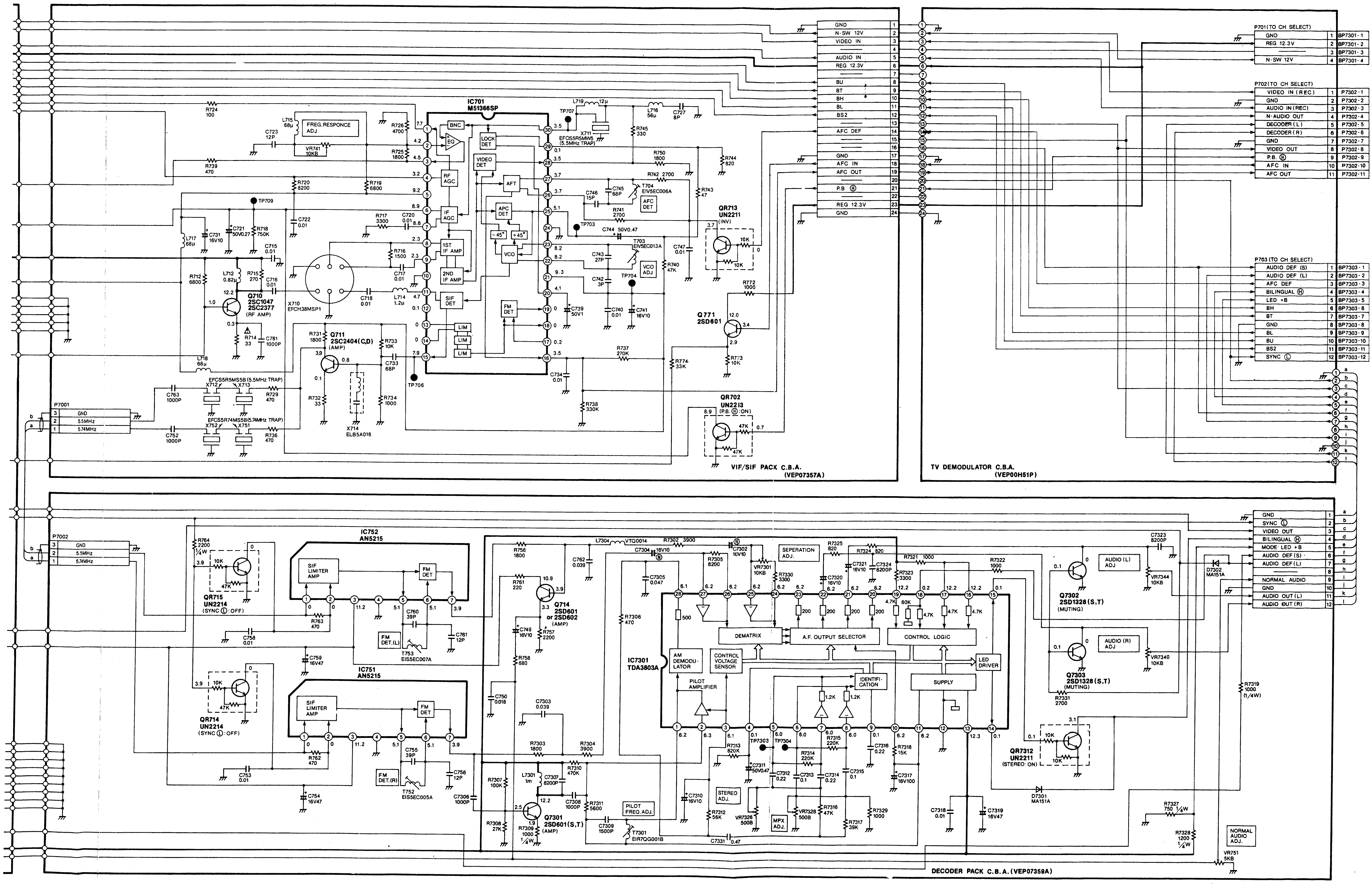
DECODER PACK C.B.A.
(VEP07359A: VR6948/02)


D710
C765
Q715
C728
R728
C730
R765
C782
C766
C768
C783
BU
Q712
R775
AGC
Q772
R778
BL
Q773
R776
D771
BH
QR711
R777
R779
RF CONVETER
C704
BS2
R707
BT
R721
BP
U.AGC
VR701
BM
QR712
V.AGC
VR702
R722
IF
QR701
TUNER
C775
R713
C710
X716
X717
T710
L702
a
b
R723
L704
C702
C709
Q713
D712
C705
L703
R760
C764
C707
C703
C708
L701
R746
Q703
R792
C7652
R7654
R7655
X715
R7656
R7651
C748
6
I
AUDIO(R) ADJ.
AUDIO(L) ADJ.
STELEO DETECTION ADJ.
Q7302
VR7340
VR7344
VR7326
C7305
R7306
C7331
R7316
D7302
R7331
Q7303
R7312
R7317
E
AUDIO LEVEL ADJ.
STELEO SEPARA-TION ADJ.
VR751
28
R7305
1
C7312
C7310
C7314
C7311
25
R7313
VR7301
R7322
R7314
5
C7313
TP7303
C7324
R7330
IC7301
TP7304
VR7328
R7325
C7315
20
R7318
R7315
R7324
C7320
10
C7316
MULTIPLEX DETECTION ADJ
R7329
C7317
C7323
C7321
R7323
C7318
R7328
C7302
R7321
15
14
R7327
QR7312
D7301
PILOT FREQ. ADJ
C7319
C750
T7301
R758
R7311
R757
C749
R7302
C7309
R7310
Q714
C7304
C7308
R761
R7304
R7307
C7307
L7304
C7303
L7301
C762
R756
R7303
C7306
C761
7
T753
T752
R7308
Q7301
C760
(L)
(R)
C755
C756
C759
FM DET. TRANS. ADJ.
R7309
C753
C758
D
R7319
R763
QR715
QR714
R762
C754
IC752
IC751
R764
P7002
3
12
P701
4
P703
13
15
24
P702
11
VR6948/02


RF CONVERTER ENC87956
N-SW 12V
VIDEO IN
AUDIO IN
REG 12.3V
TUNER TNV57481F1
U. AGC
V. AGC
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
Q703 2SD601(S,T) 2SD602(S,T) (BUFFER)
Q712 2SD638 2SC1788 2SC1317 (VOLTAGE STABILIZER)
QR701 UN2214 (AMP)
T710 EULBEF022
X715 ELB5A043
X717 ELB5A047
D771 MA151WK
Q773 2SK198 (VL:ON)
Q772 2SK198 (VH:ON)
D710 MA3100L
X716 EFCA40R40M1 (40.4MHz TRAP)
IC7651 AN5421
MUTING PACK C.B.A. (VEP07364A)
NOISE GATE
SYNC SEP
H-OSC
H-AFC
VOLTAGE COMP.
FILTER
OUT-PUT
TIMER MUTING FREQ. ADJ.
SYNC Ⓛ
GND
REG 12.3V
VIDEO IN
Q715 2SD601 (VOLTAGE STABILIZER)
Q713 2SD1328(S,T) (INV)
D712 MA28WA
TUNER/ARU PACK C.B.A. (VEP07358J)
P7001
P7002
GND
5.5MHz
5.74MHz
IC701 M51366SP
FREQ. RESPONCE ADJ
Q710 2SC1047 2SC2377 (RF AMP)
X710 EFCH38MSP1
Q711 2SC2404(C,D) (AMP)
EFCS5R5MS5B (5.5MHz TRAP)
EFCS5R74MS5B (5.74MHz TRAP)
X714 ELB5A016
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
LOCK DET
VIDEO DET
AFT
APC DET
VCO
FM DET
X711 EFCS5R5MW5 (5.5MHz TRAP)
T704 EIV5EC006A
T703 EIV5EC013A
AFC DET
VCO ADJ
QR713 UN2211 (INV)
Q771 2SD601
QR702 UN2213 (P.B. Ⓝ:ON)
VIF/SIF PACK C.
IC752 AN5215
IC751 AN5215
SIF LIMITER AMP
FM DET
FM DET.(L)
FM DET.(R)
T753 EIS5EC007A
T752 EIS5EC005A
QR715 UN2214 (SYNC Ⓛ:OFF)
QR714 UN2214 (SYNC Ⓛ:OFF)
Q714 2SD601 or 2SD602 (AMP)
IC7301 TDA3803A
AM DEMODU-LATOR
PILOT AMPLIFIER
CONTROL VOLTAGE SENSOR
DEMATRIX
Q7301 2SD601(S,T) (AMP)
PILOT FREQ. ADJ.
STEREO ADJ.
T7301 EIR7QG001B

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

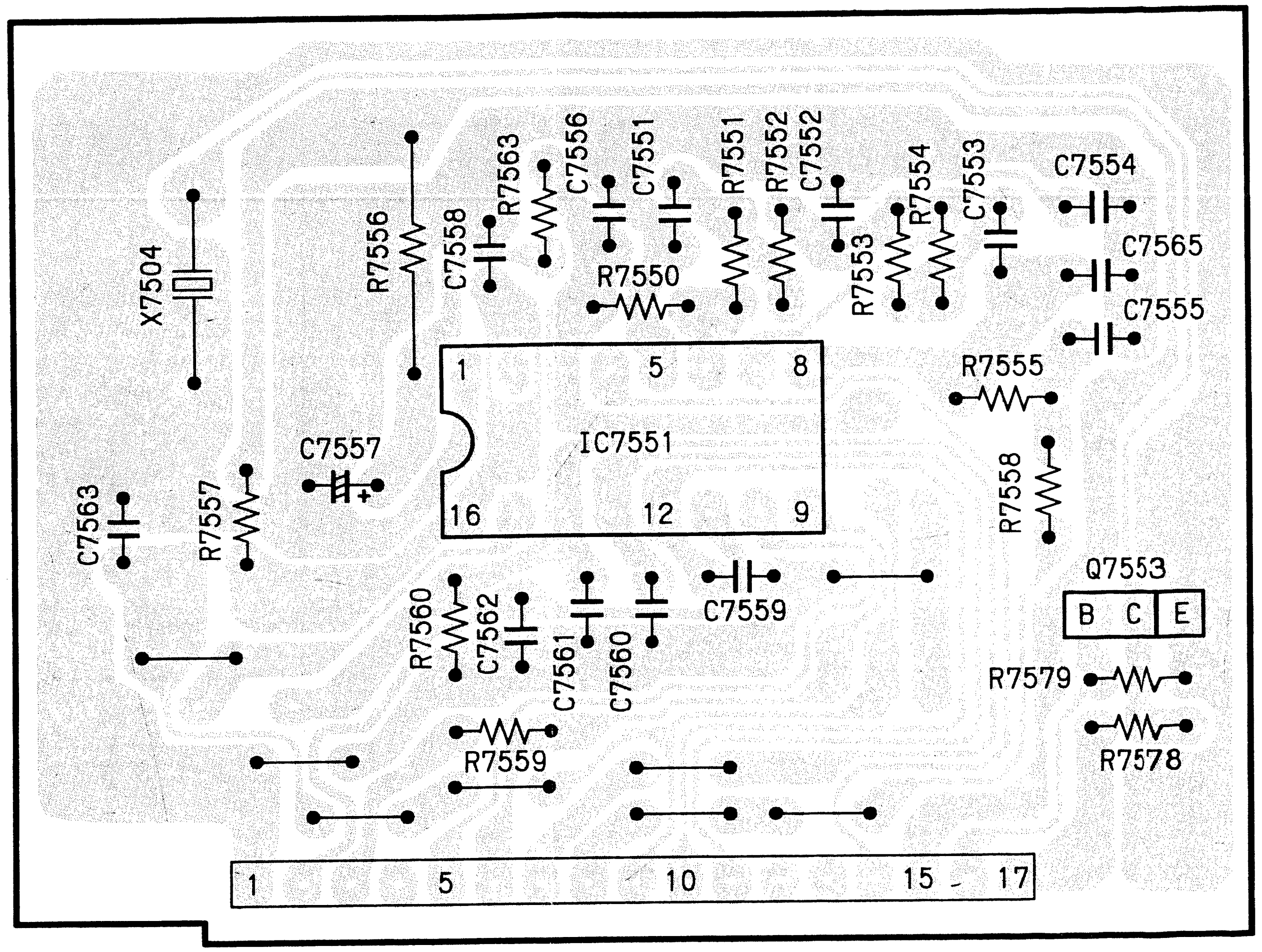
NOTE: DO NOT USE ANY PART NUMBER S
SCHEMATIC DIAGRAM FOR ORDERIN
ORDER A PART. PLEASE REFER TO P

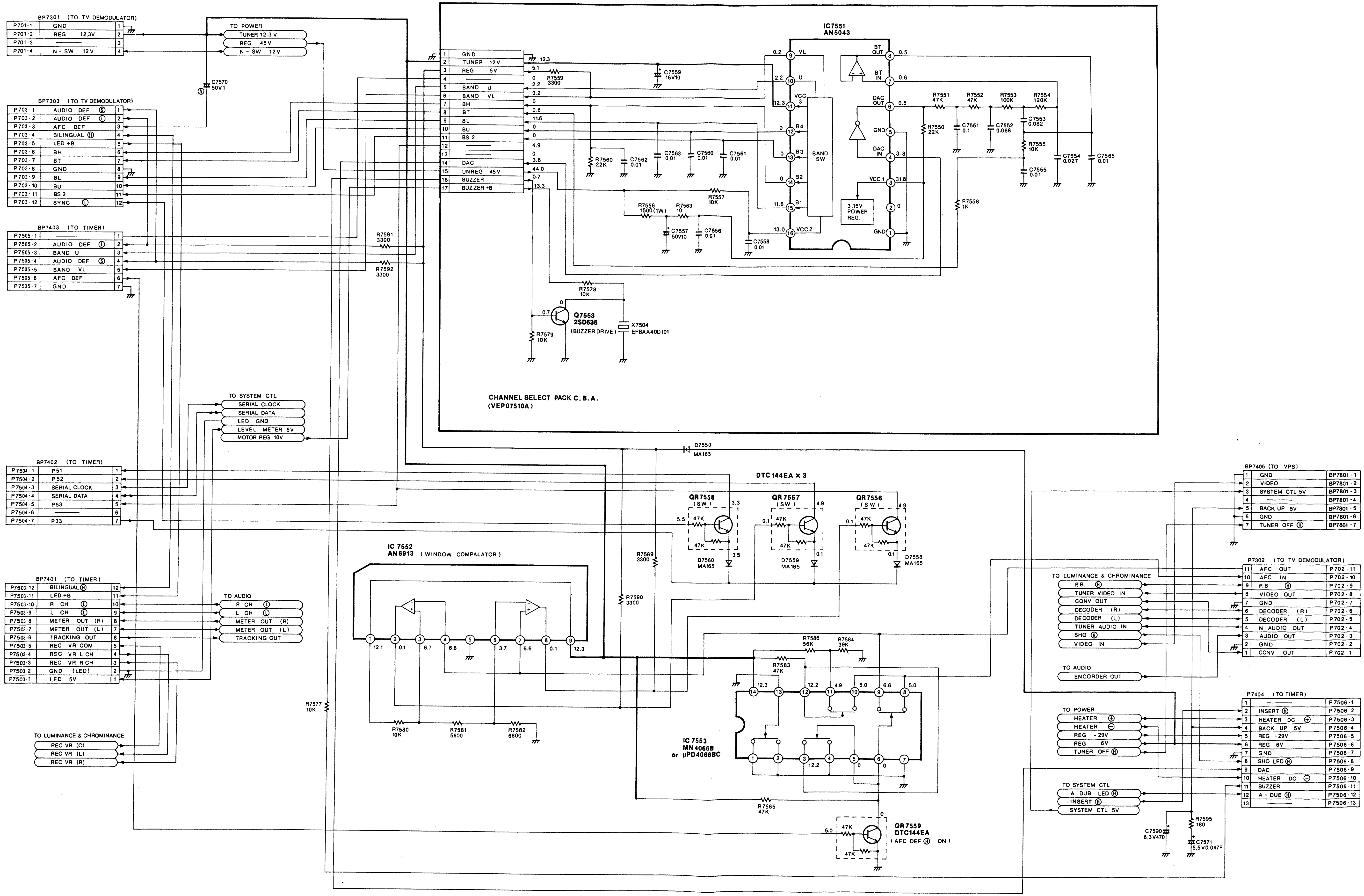

IC701
M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
IF AGC
AFT
APC DET
AFC DET
VCO ADJ
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
VCO
FREQ. RESPONCE ADJ
Q710 2SC1047 2SC2377 (RF AMP)
Q711 2SC2404(C,D) (AMP)
QR713 UN2211 (INV)
Q771 2SD601
QR702 UN2213 (P.B Ⓗ:ON)
X710 EFCH38MSP1
X711 EFCS5R5MW5 (5.5MHz TRAP)
EFCS5R5MS5B (5.5MHz TRAP)
EFCS5R74MS5B (5.74MHz TRAP)
X714 ELB5A016
T703 EIV5EC013A
T704 EIV5EC006A
TP703
TP704
TP706
TP707
TP709
P7001
P7002
GND
5.5MHz
5.74MHz
VIF/SIF PACK C.B.A. (VEP07357A)
TV DEMODULATOR C.B.A. (VEP00H51P)
GND
N-SW 12V
VIDEO IN
AUDIO IN
REG 12.3V
BU
BT
BH
BL
BS2
AFC DEF
GND
AFC IN
AFC OUT
P.B Ⓗ
REG 12.3V
GND
P701 (TO CH SELECT)
GND
REG 12.3V
N-SW 12V
BP7301-1
BP7301-2
BP7301-3
BP7301-4
P702 (TO CH SELECT)
VIDEO IN (REC)
GND
AUDIO IN (REC)
N-AUDIO OUT
DECODER (L)
DECODER (R)
GND
VIDEO OUT
P.B. Ⓗ
AFC IN
AFC OUT
P7302-1
P7302-2
P7302-3
P7302-4
P7302-5
P7302-6
P7302-7
P7302-8
P7302-9
P7302-10
P7302-11
P703 (TO CH SELECT)
AUDIO DEF (S)
AUDIO DEF (L)
AFC DEF
BILINGUAL Ⓗ
LED +B
BH
BT
GND
BL
BU
BS2
SYNC Ⓛ
BP7303-1
BP7303-2
BP7303-3
BP7303-4
BP7303-5
BP7303-6
BP7303-7
BP7303-8
BP7303-9
BP7303-10
BP7303-11
BP7303-12
IC752 AN5215
IC751 AN5215
SIF LIMITER AMP
FM DET
FM DET.(L)
FM DET.(R)
T753 EIS5EC007A
T752 EIS5EC005A
QR715 UN2214 (SYNC Ⓛ:OFF)
QR714 UN2214 (SYNC Ⓛ:OFF)
Q714 2SD601 or 2SD602 (AMP)
Q7301 2SD601(S,T) (AMP)
L7304 VTQ0014
IC7301 TDA3803A
AM DEMODULATOR
PILOT AMPLIFIER
DEMATRIX
A.F. OUTPUT SELECTOR
CONTROL LOGIC
CONTROL VOLTAGE SENSOR
IDENTIFICATION
LED DRIVER
SUPPLY
SEPERATION ADJ.
PILOT FREQ. ADJ.
STEREO ADJ.
MPX ADJ.
T7301 EIR7QG001B
TP7303
TP7304
Q7302 2SD1328(S,T) (MUTING)
Q7303 2SD1328(S,T) (MUTING)
AUDIO (L) ADJ
AUDIO (R) ADJ
QR7312 UN2211 (STEREO: ON)
D7301 MA151A
D7302 MA151A
NORMAL AUDIO ADJ.
VR751 5KB
GND
SYNC Ⓛ
VIDEO OUT
BILINGUAL Ⓗ
MODE LED +B
AUDIO DEF (S)
AUDIO DEF (L)
NORMAL AUDIO
GND
AUDIO OUT (L)
AUDIO OUT (R)
DECODER PACK C.B.A. (VEP07359A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.


X7504
R7556
C7558
R7563
C7556
C7551
R7551
R7552
C7552
R7554
C7553
C7554
C7565
C7555
R7550
R7553
R7555
1
5
8
IC7551
16
12
9
C7557
C7563
R7557
R7558
Q7553
B
C
E
R7560
C7562
C7561
C7560
C7559
R7579
R7578
R7559
1
5
10
15
17


BP7301 (TO TV DEMODULATOR)
P701·1 GND 1
P701·2 REG 12.3V 2
P701·3 3
P701·4 N-SW 12V 4
TO POWER
TUNER 12.3 V
REG 45 V
N-SW 12 V
C7570 50V1
BP7303 (TO TV DEMODULATOR)
P703·1 AUDIO DEF Ⓢ 1
P703·2 AUDIO DEF Ⓛ 2
P703·3 AFC DEF 3
P703·4 BILINGUAL Ⓗ 4
P703·5 LED +B 5
P703·6 BH 6
P703·7 BT 7
P703·8 GND 8
P703·9 BL 9
P703·10 BU 10
P703·11 BS 2 11
P703·12 SYNC Ⓛ 12
BP7403 (TO TIMER)
P7505·1 1
P7505·2 AUDIO DEF Ⓛ 2
P7505·3 BAND U 3
P7505·4 AUDIO DEF Ⓢ 4
P7505·5 BAND VL 5
P7505·6 AFC DEF 6
P7505·7 GND 7
R7591 3300
R7592 3300
1 GND
2 TUNER 12V
3 REG 5V
4
5 BAND U
6 BAND VL
7 BH
8 BT
9 BL
10 BU
11 BS 2
12
13
14 DAC
15 UNREG 45V
16 BUZZER
17 BUZZER +B
12.3
5.1
0
2.2
0.2
0
0.8
11.6
0
0
4.9
0
3.8
44.0
0.7
13.3
R7559 3300
C7559 16V10
IC7551 AN5043
VL
U
VCC 3
B4
B3
B2
B1
VCC2
BAND SW
BT OUT
BT IN
DAC OUT
GND
DAC IN
VCC 1
3.15V POWER REG.
GND
0.2
2.2
12.3
0
0
0
11.6
13.0
0.5
0.6
0.5
3.8
31.8
0
R7551 47K
R7552 47K
R7553 100K
R7554 120K
R7550 22K
C7551 0.1
C7552 0.068
C7553 0.082
R7555 10K
C7555 0.01
C7554 0.027
C7565 0.01
R7558 1K
R7560 22K
C7562 0.01
C7563 0.01
C7560 0.01
C7561 0.01
R7557 10K
R7556 1500(1W)
R7563 10
C7557 50V10
C7556 0.01
C7558 0.01
R7578 10K
0
0.7
Q7553 2SD636 (BUZZER DRIVE)
R7579 10K
X7504 EFBAA40D101
CHANNEL SELECT PACK C.B.A. (VEP07510A)
TO SYSTEM CTL
SERIAL CLOCK
SERIAL DATA
LED GND
LEVEL METER 5V
MOTOR REG 10V
D7550 MA165
BP7402 (TO TIMER)
P7504·1 P51 1
P7504·2 P52 2
P7504·3 SERIAL CLOCK 3
P7504·4 SERIAL DATA 4
P7504·5 P53 5
P7504·6 6
P7504·7 P33 7
DTC144EA × 3
QR7558 (SW)
QR7557 (SW)
QR7556 (SW)
47K
47K
5.5
3.3
3.5
0.1
4.9
0.1
0.1
4.9
0.1
D7560 MA165
D7559 MA165
D7558 MA165
R7589 3300
R7590 3300
IC 7552 AN6913 (WINDOW COMPALATOR)
12.1
0.1
6.7
6.6
3.7
6.6
0.1
12.3
R7580 10K
R7581 5600
R7582 6800
BP7401 (TO TIMER)
P7503·12 BILINGUAL Ⓗ 12
P7503·11 LED +B 11
P7503·10 R CH Ⓛ 10
P7503·9 L CH Ⓛ 9
P7503·8 METER OUT (R) 8
P7503·7 METER OUT (L) 7
P7503·6 TRACKING OUT 6
P7503·5 REC VR COM 5
P7503·4 REC VR L CH 4
P7503·3 REC VR R CH 3
P7503·2 GND (LED) 2
P7503·1 LED 5V 1
TO AUDIO
R CH Ⓛ
L CH Ⓛ
METER OUT (R)
METER OUT (L)
TRACKING OUT
R7577 10K
TO LUMINANCE & CHROMINANCE
REC VR (C)
REC VR (L)
REC VR (R)
R7586 56K
R7584 39K
R7583 47K
12.3
12.2
4.9
5.0
6.6
5.0
12.2
0
0
IC 7553 MN4066B or μPD4066BC
R7585 47K
QR7559 DTC144EA (AFC DEF Ⓗ : ON)
5.0
47K
47K
0
BP7405 (TO VPS)
1 GND BP7801·1
2 VIDEO BP7801·2
3 SYSTEM CTL 5V BP7801·3
4 BP7801·4
5 BACK UP 5V BP7801·5
6 GND BP7801·6
7 TUNER OFF Ⓗ BP7801·7
P7302 (TO TV DEMODULATOR)
11 AFC OUT P702·11
10 AFC IN P702·10
9 P.B. Ⓗ P702·9
8 VIDEO OUT P702·8
7 GND P702·7
6 DECODER (R) P702·6
5 DECODER (L) P702·5
4 N. AUDIO OUT P702·4
3 AUDIO OUT P702·3
2 GND P702·2
1 CONV OUT P702·1
TO LUMINANCE & CHROMINANCE
P.B. Ⓗ
TUNER VIDEO IN
CONV OUT
DECODER (R)
DECODER (L)
TUNER AUDIO IN
SHQ Ⓗ
VIDEO IN
TO AUDIO
ENCORDER OUT
P7404 (TO TIMER)
1 P7506·1
2 INSERT Ⓗ P7506·2
3 HEATER DC ⊕ P7506·3
4 BACK UP 5V P7506·4
5 REG -29V P7506·5
6 REG 6V P7506·6
7 GND P7506·7
8 SHQ LED Ⓗ P7506·8
9 DAC P7506·9
10 HEATER DC ⊖ P7506·10
11 BUZZER P7506·11
12 A-DUB Ⓗ P7506·12
13 P7506·13
TO POWER
HEATER ⊕
HEATER ⊖
REG -29V
REG 6V
TUNER OFF Ⓗ
TO SYSTEM CTL
A DUB LED Ⓗ
INSERT Ⓗ
SYSTEM CTL 5V
R7595 180
C7590 6.3V470
C7571 5.5V0.047F

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Timer circuit board assembly

P7501	4822 265 40853	CONNECTOR 11P
P7502	4822 267 50911	CONNECTOR
P7503	4822 265 40854	CONNECTOR 12P
P7504,	4822 265 20268	CONNECTOR 7P
P7506	4822 267 50909	CONNECTOR
P7507	4822 265 30697	CONNECTOR 4P

X7501	4822 242 71693	CRYSTAL OSCILLATOR
X7502	4822 242 70915	CRYSTAL OSCILLATOR
X7504	4822 242 72484	CRYSTAL OSCILLATOR

Miscellaneous

	4822 255 40936	LED HOLDER
	4822 532 61144	LED SPACER
	4822 466 10571	REC VOLUME SLIDE PLA
	4822 411 61592	REC VOLUME KNOB
	4822 403 53734	LEVEL METER HOLDER
	4822 403 53733	FIP HOLDER
	4822 403 53732	REC VOLUME LEVER

C6701	4822 124 21513	E.CAP 6.3V 47 μF
C6702	4822 122 32197	C.CAP 50V 1000P
C6703	4822 124 40839	E.CAP 50V 1 μF
C6704	4822 124 21547	E.CAP 50V 3.3 μF
C7501	4822 122 32296	C.CAP 50V 8P
C7502	4822 125 60147	TRIMER 30P
C7503	4822 124 40838	E.CAP 50V 0.22 μF
C7504	4822 122 32216	C.CAP 50V 22P
C7505	5322 122 32072	C.CAP 50V 33P
C7507	4822 121 42179	P.CAP 50V 0.1 μF
C7510	4822 124 21666	E.CAP 50V 22 μF
C7511	4822 124 41004	E.CAP 6.3V 220 μF
C7512	4822 121 42179	P.CAP 50V 0.1 μF
C7514	4822 122 32247	C.CAP 50V 0.01 μF
C7515	4822 124 21513	E.CAP 6.3V 47 μF
C7520	4822 124 41004	E.CAP 6.3V 220 μF
C7523	4822 122 32227	C.CAP 50V 68P
C7524	4822 122 32457	C.CAP 50V 100P
C7525	4822 122 32457	C.CAP 50V 100P
C7526	4822 122 32457	C.CAP 50V 100P
C7527	4822 122 32224	C.CAP 50V 56P
C7530	4822 121 42179	P.CAP 50V 0.1 μF
C7531	4822 124 21513	E.CAP 6.3V 47 μF
C7532	5322 122 32072	C.CAP 50V 33P
C7533	5322 122 32072	C.CAP 50V 33P
C7586	4822 122 32231	C.CAP 50V 1000P
C7588	4822 122 32308	C.CAP 50V 330P

D6701	4822 130 81391	PN323B
D7501	4822 130 81365	11ES1
D7502	4822 130 32362	MA165
D7503	4822 130 33284	MA4075
D7506	4822 130 32362	MA165
D7507	4822 130 32362	MA165
D7508	4822 130 32362	MA165
D7509	4822 130 32362	MA165
D7510	4822 130 32362	MA165
D7511	4822 130 32362	MA165
D7512	4822 130 32362	MA165
D7513	4822 130 32362	MA165
D7517	4822 130 81383	LN28RCPP
D7518	4822 130 81383	LN28RCPP
D7519	4822 130 81382	LN023234P2
D7522	4822 130 32362	MA165
D7526	4822 130 32362	MA165
D7527	4822 130 32362	MA165
D7529	4822 130 32362	MA165
D7534	4822 130 32362	MA165
D7535	4822 130 32362	MA165
D7538	4822 130 32362	MA165
D7540	4822 130 32362	MA165

DP7501	4822 130 90649	VSL0113 Display

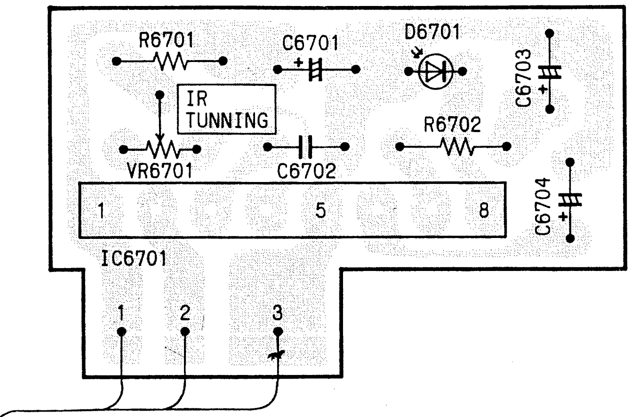
L7501	4822 157 52163

Q7501	4822 130 41323	2SD637
Q7502	4822 130 41605	2SD636
QR7502	4822 111 91319	UN1213
QR7503	4822 111 91222	UN1112
QR7505	4822 111 91318	UN1113
QR7506	4822 111 91319	UN1213
QR7511	4822 111 91319	UN1213

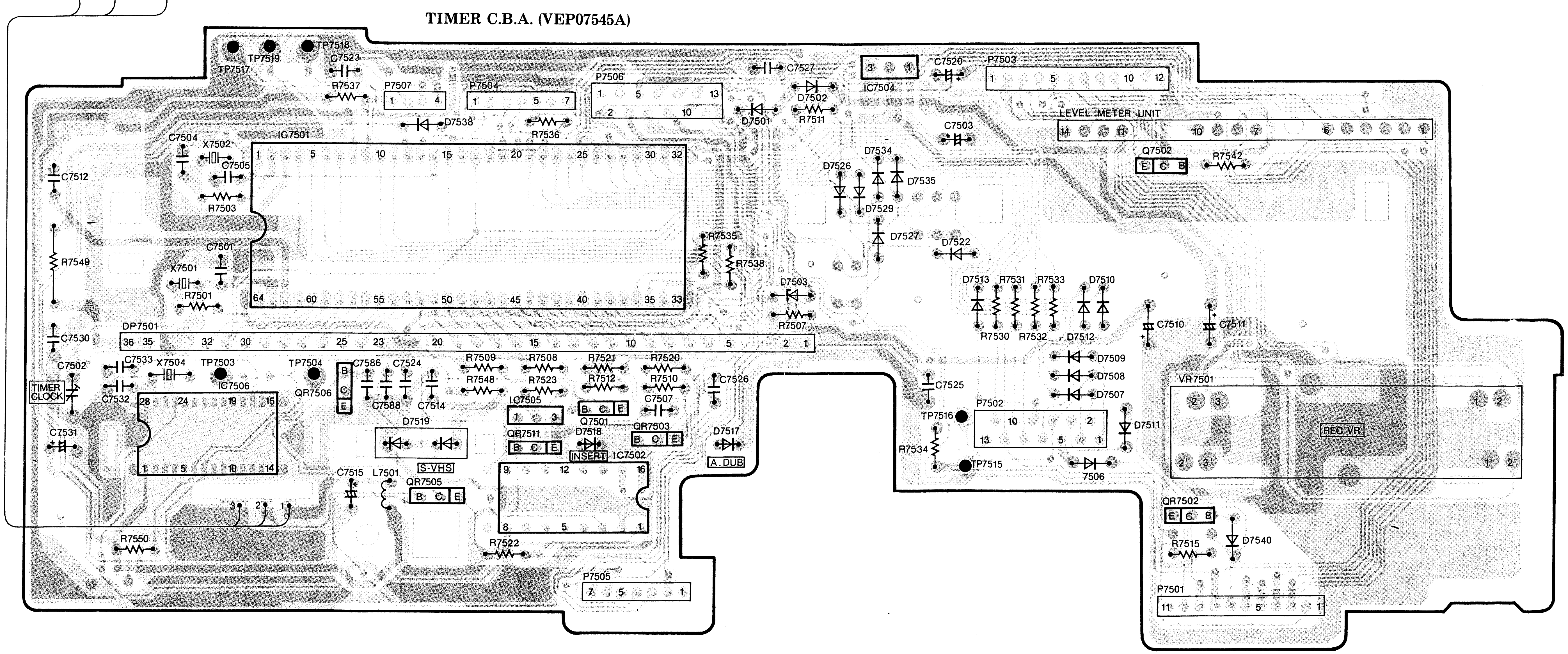
R6701	4822 116 52245	C.RES. 150 kΩ
R6702	4822 116 81415	C.RES. 8.2
R7501	4822 116 52207	C.RES. 1.2 kΩ
R7503	4822 116 52258	C.RES. 220 kΩ
R7507	4822 116 52234	C.RES. 100 kΩ
R7508	4822 116 52195	C.RES. 47
R7509	4822 116 52204	C.RES. 1 kΩ
R7510	4822 116 52257	C.RES. 22 kΩ
R7511	4822 116 52284	C.RES. 47 kΩ
R7512	4822 116 52284	C.RES. 47 kΩ
R7515	4822 116 52269	C.RES. 3.3 kΩ
R7520	4822 116 52233	C.RES. 10 kΩ
R7521	4822 116 52233	C.RES. 10 kΩ
R7522	4822 116 52233	C.RES. 10 kΩ
R7523	4822 116 52284	C.RES. 47 kΩ
R7530	4822 116 52249	C.RES. 1.8 kΩ
R7531	4822 116 52249	C.RES. 1.8 kΩ
R7532	4822 116 52249	C.RES. 1.8 kΩ
R7533	4822 116 52249	C.RES. 1.8 kΩ
R7534	4822 116 52249	C.RES. 1.8 kΩ
R7535	4822 116 52204	C.RES. 1 kΩ
R7536	4822 116 52233	C.RES. 10 kΩ
R7537	4822 116 52284	C.RES. 47 kΩ
R7538	4822 116 52215	C.RES. 220
R7542	4822 116 52284	C.RES. 47 kΩ
R7548	4822 116 52193	C.RES. 39
R7549	4822 116 81413	C.RES. 1/2W 8.2
R7550	4822 116 81416	C.RES. 3.3 kΩ

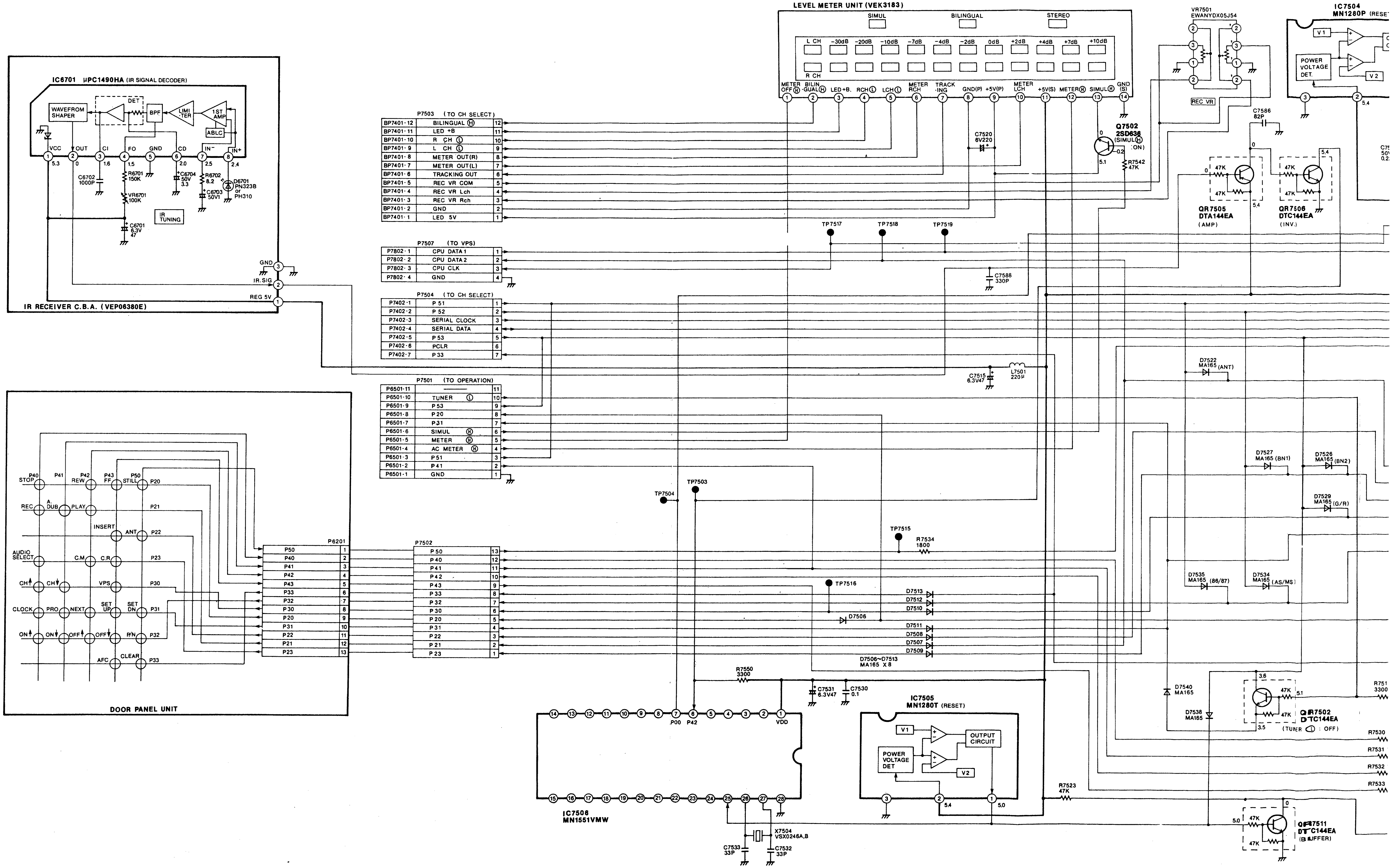
VR6701	4822 101 10582	V.RES 100 kΩ
VR7501	4822 101 30602	V.RES 50 kΩ

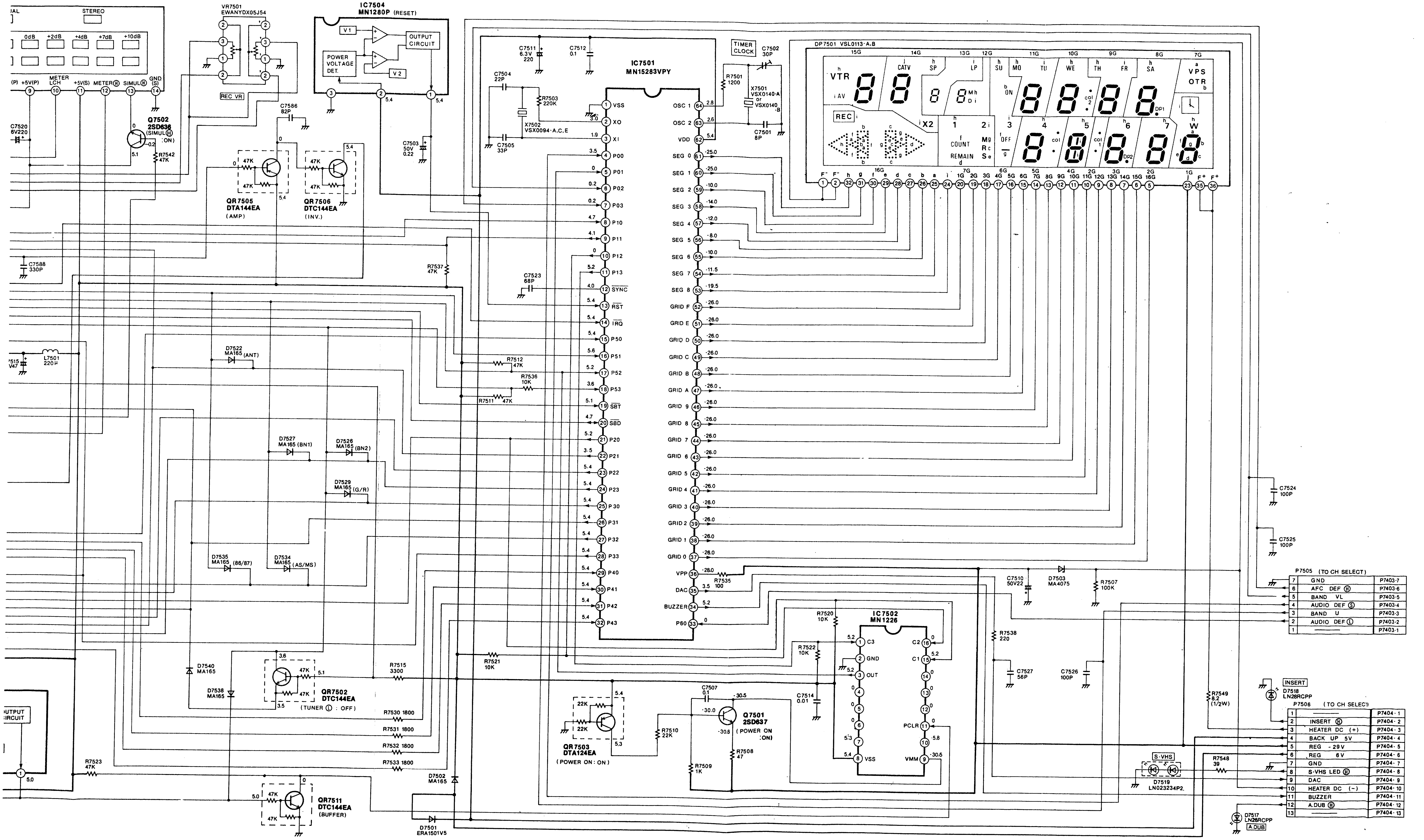
IR RECEIVER C.B.A. (VEP06380E)


R6701
C6701
D6701
C6703
IR TUNNING
R6702
VR6701
C6702
C6704
1
5
8
IC6701
1
2
3

TIMER C.B.A. (VEP07545A)

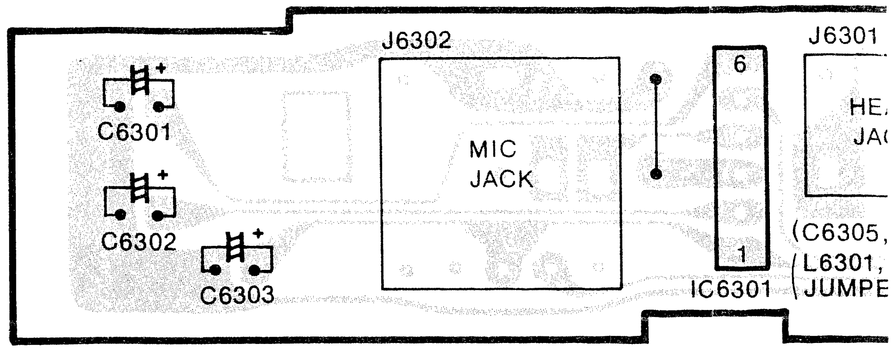

TP7517
TP7519
TP7518
C7523
R7537
P7507
P7504
P7506
C7527
IC7504
C7520
P7503
D7538
R7536
D7502
D7501
R7511
C7503
LEVEL METER UNIT
C7504
X7502
IC7501
C7505
C7512
R7503
Q7502
R7542
D7534
D7526
D7535
D7529
R7535
D7527
D7522
R7549
C7501
R7538
X7501
D7503
R7501
D7513
R7531
R7533
D7510
R7507
C7510
C7511
DP7501
R7530
R7532
D7512
C7530
C7502
C7533
X7504
TP7503
TP7504
C7586
C7524
R7509
R7508
R7521
R7520
D7509
TIMER CLOCK
C7532
IC7506
QR7506
C7588
C7514
R7548
R7523
R7512
R7510
C7526
C7525
D7508
D7507
VR7501
IC7505
C7507
P7502
C7531
D7519
QR7511
D7518
Q7501
QR7503
D7517
TP7516
D7511
REC VR
INSERT
IC7502
R7534
A.DUB
S-VHS
TP7515
C7515
L7501
QR7505
7506
QR7502
R7550
R7522
R7515
D7540
P7505
P7501


LEVEL METER UNIT (VEK3183)
SIMUL
BILINGUAL
STEREO
L CH
-30dB
-20dB
-10dB
-7dB
-4dB
-2dB
0dB
+2dB
+4dB
+7dB
+10dB
R CH
METER OFF Ⓗ
BILIN-GUAL Ⓗ
LED +B.
RCH Ⓛ
LCH Ⓛ
METER RCH
TRACK-ING
GND(P)
+5V(P)
METER LCH
+5V(S)
METER Ⓗ
SIMUL Ⓗ
GND (S)
VR7501
EWANYDX05J54
REC VR
IC7504
MN1280P (RESET)
V1
V2
POWER VOLTAGE DET.
5.4
C7586
82P
Q7502
2SD636
(SIMUL Ⓗ :ON)
R7542
47K
5.1
0.2
C7520
6V220
QR7505
DTA144EA
(AMP)
QR7506
DTC144EA
(INV.)
47K
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMI-TER
1ST AMP
ABLC
VCC
OUT
CI
FO
GND
CD
IN⁻
IN⁺
5.3
1.6
1.5
2.0
2.5
2.4
C6702
1000P
R6701
150K
VR6701
100K
C6704
50V
3.3
R6702
8.2
C6703
50V1
D6701
PN323B
or
PH310
IR TUNING
C6701
6.3V
47
GND
IR.SIG
REG 5V
IR RECEIVER C.B.A. (VEP06380E)
P7503 (TO CH SELECT)
BP7401-12 BILINGUAL Ⓗ 12
BP7401-11 LED +B 11
BP7401-10 R CH Ⓛ 10
BP7401-9 L CH Ⓛ 9
BP7401-8 METER OUT(R) 8
BP7401-7 METER OUT(L) 7
BP7401-6 TRACKING OUT 6
BP7401-5 REC VR COM 5
BP7401-4 REC VR Lch 4
BP7401-3 REC VR Rch 3
BP7401-2 GND 2
BP7401-1 LED 5V 1
TP7517
TP7518
TP7519
P7507 (TO VPS)
P7802-1 CPU DATA 1 1
P7802-2 CPU DATA 2 2
P7802-3 CPU CLK 3
P7802-4 GND 4
C7588
330P
P7504 (TO CH SELECT)
P7402-1 P 51 1
P7402-2 P 52 2
P7402-3 SERIAL CLOCK 3
P7402-4 SERIAL DATA 4
P7402-5 P 53 5
P7402-6 PCLR 6
P7402-7 P 33 7
C7515
6.3V47
L7501
220μ
D7522
MA165 (ANT)
P7501 (TO OPERATION)
P6501-11 11
P6501-10 TUNER Ⓛ 10
P6501-9 P 53 9
P6501-8 P 20 8
P6501-7 P 31 7
P6501-6 SIMUL Ⓗ 6
P6501-5 METER Ⓗ 5
P6501-4 AC METER Ⓗ 4
P6501-3 P 51 3
P6501-2 P 41 2
P6501-1 GND 1
D7527
MA165 (BN1)
D7526
MA165 (BN2)
D7529
MA165 (G/R)
STOP P40
P41
REW P42
FF P43
STILL P50
P20
REC
A. DUB
PLAY
P21
INSERT
ANT
P22
AUDIO SELECT
C.M
C.R
P23
CH▲
CH▼
VPS
P30
CLOCK
PRO
NEXT
SET UP
SET DN
P31
ON▲
ON▼
OFF▲
OFF▼
P/N
P32
AFC
CLEAR
P33
DOOR PANEL UNIT
P6201
P50 1
P40 2
P41 3
P42 4
P43 5
P33 6
P32 7
P30 8
P20 9
P31 10
P22 11
P21 12
P23 13
P7502
P 50 13
P 40 12
P 41 11
P 42 10
P 43 9
P 33 8
P 32 7
P 30 6
P 20 5
P 31 4
P 22 3
P 21 2
P 23 1
TP7504
TP7503
TP7515
R7534
1800
TP7516
D7513
D7512
D7510
D7506
D7511
D7508
D7507
D7509
D7506~D7513
MA165 X 8
D7535
MA165 (86/87)
D7534
MA165 (AS/MS)
R7550
3300
C7531
6.3V47
C7530
0.1
P00
P42
VDD
IC7506
MN1551VMW
X7504
VSX0246A,B
C7533
33P
C7532
33P
IC7505
MN1280T (RESET)
V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
5.4
5.0
R7523
47K
D7540
MA165
D7538
MA165
3.6
3.5
5.1
QR7502
DTC144EA
(TUNER Ⓛ : OFF)
R751
3300
R7530
R7531
R7532
R7533
5.0
QR7511
DTC144EA
(BUFFER)


STEREO
0dB
+2dB
+4dB
+7dB
+10dB
METER LCH
+5V(P)
+5V(S)
METER Ⓗ
SIMUL Ⓗ
GND (S)
VR7501 EWANYDX05J54
REC VR
IC7504 MN1280P (RESET)
V1
V2
POWER VOLTAGE DET.
OUTPUT CIRCUIT
Q7502 2SD636 (SIMUL Ⓗ :ON)
R7542 47K
C7520 6V220
C7586 82P
QR7505 DTA144EA (AMP)
QR7506 DTC144EA (INV.)
C7503 50V 0.22
C7511 6.3V 220
C7512 0.1
C7504 22P
R7503 220K
X7502 VSX0094-A,C,E
C7505 33P
IC7501 MN15283VPY
VSS
XO
XI
P00
P01
P02
P03
P10
P11
P12
P13
SYNC
RST
IRQ
P50
P51
P52
P53
SBT
SBD
P20
P21
P22
P23
P30
P31
P32
P33
P40
P41
P42
P43
OSC 1
OSC 2
VDD
SEG 0
SEG 1
SEG 2
SEG 3
SEG 4
SEG 5
SEG 6
SEG 7
SEG 8
GRID F
GRID E
GRID D
GRID C
GRID B
GRID A
GRID 9
GRID 8
GRID 7
GRID 6
GRID 5
GRID 4
GRID 3
GRID 2
GRID 1
GRID 0
VPP
DAC
BUZZER
P60
TIMER CLOCK
C7502 30P
R7501 1200
X7501 VSX0140-A or VSX0140-B
C7501 8P
DP7501 VSL0113-A,B
VTR
CATV
SP
LP
SU
MO
TU
WE
TH
FR
SA
VPS
OTR
REC
X2
COUNT
REMAIN
OFF
ON
R7537 47K
C7523 68P
C7588 330P
L7501 220µ
D7522 MA165 (ANT)
R7512 47K
R7536 10K
R7511 47K
D7527 MA165 (BN1)
D7526 MA165 (BN2)
D7529 MA165 (G/R)
D7535 MA165 (88/87)
D7534 MA165 (AS/MS)
R7535 100
C7510 50V22
D7503 MA4075
R7507 100K
C7524 100P
C7525 100P
IC7502 MN1226
C3
GND
OUT
C2
C1
PCLR
VSS
VMM
R7520 10K
R7522 10K
C7514 0.01
R7538 220
C7527 56P
C7526 100P
R7521 10K
R7515 3300
D7540 MA165
D7538 MA165
QR7502 DTC144EA (TUNER Ⓛ : OFF)
R7530 1800
R7531 1800
R7532 1800
R7533 1800
QR7503 DTA124EA (POWER ON : ON)
C7507 0.1
Q7501 2SD637 (POWER ON :ON)
R7510 22K
R7509 1K
R7508 47
R7523 47K
QR7511 DTC144EA (BUFFER)
D7502 MA165
D7501 ERA1501V5
OUTPUT CIRCUIT
R7549 8.2 (1/2W)
R7548 39
S-VHS
D7519 LN023234P2
D7518 LN28RCPP
INSERT
D7517 LN28RCPP
A.DUB
P7505 (TO CH SELECT)
7 GND P7403-7
6 AFC DEF Ⓗ P7403-6
5 BAND VL P7403-5
4 AUDIO DEF Ⓢ P7403-4
3 BAND U P7403-3
2 AUDIO DEF Ⓛ P7403-2
1 ——— P7403-1
P7506 (TO CH SELECT)
1 ——— P7404-1
2 INSERT Ⓗ P7404-2
3 HEATER DC (+) P7404-3
4 BACK UP 5V P7404-4
5 REG -29V P7404-5
6 REG 6V P7404-6
7 GND P7404-7
8 S-VHS LED Ⓗ P7404-8
9 DAC P7404-9
10 HEATER DC (−) P7404-10
11 BUZZER P7404-11
12 A.DUB Ⓗ P7404-12
13 ——— P7404-13

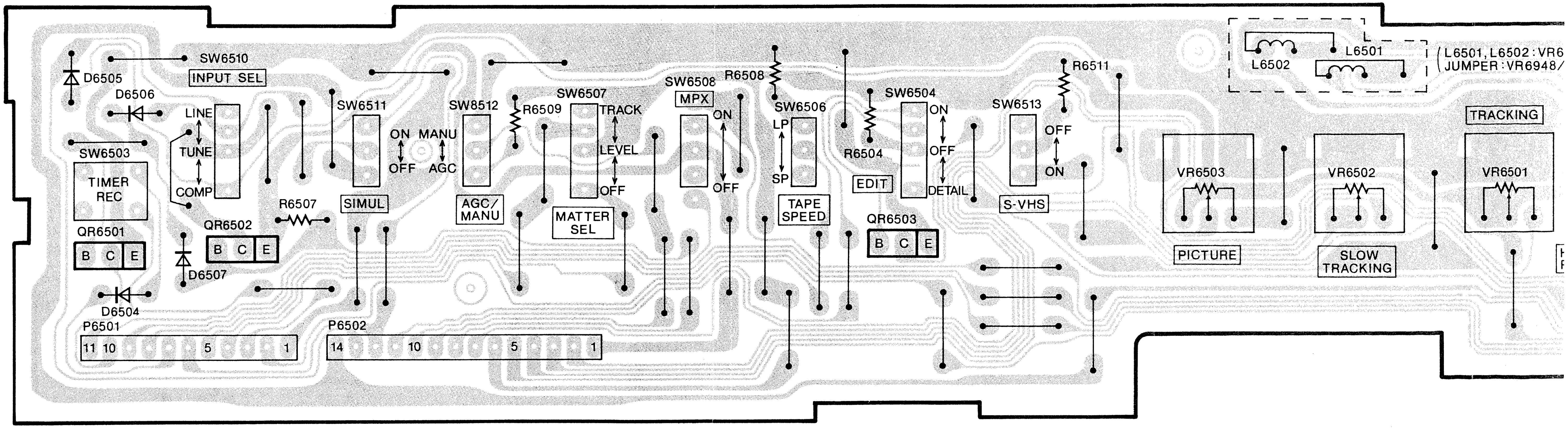
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

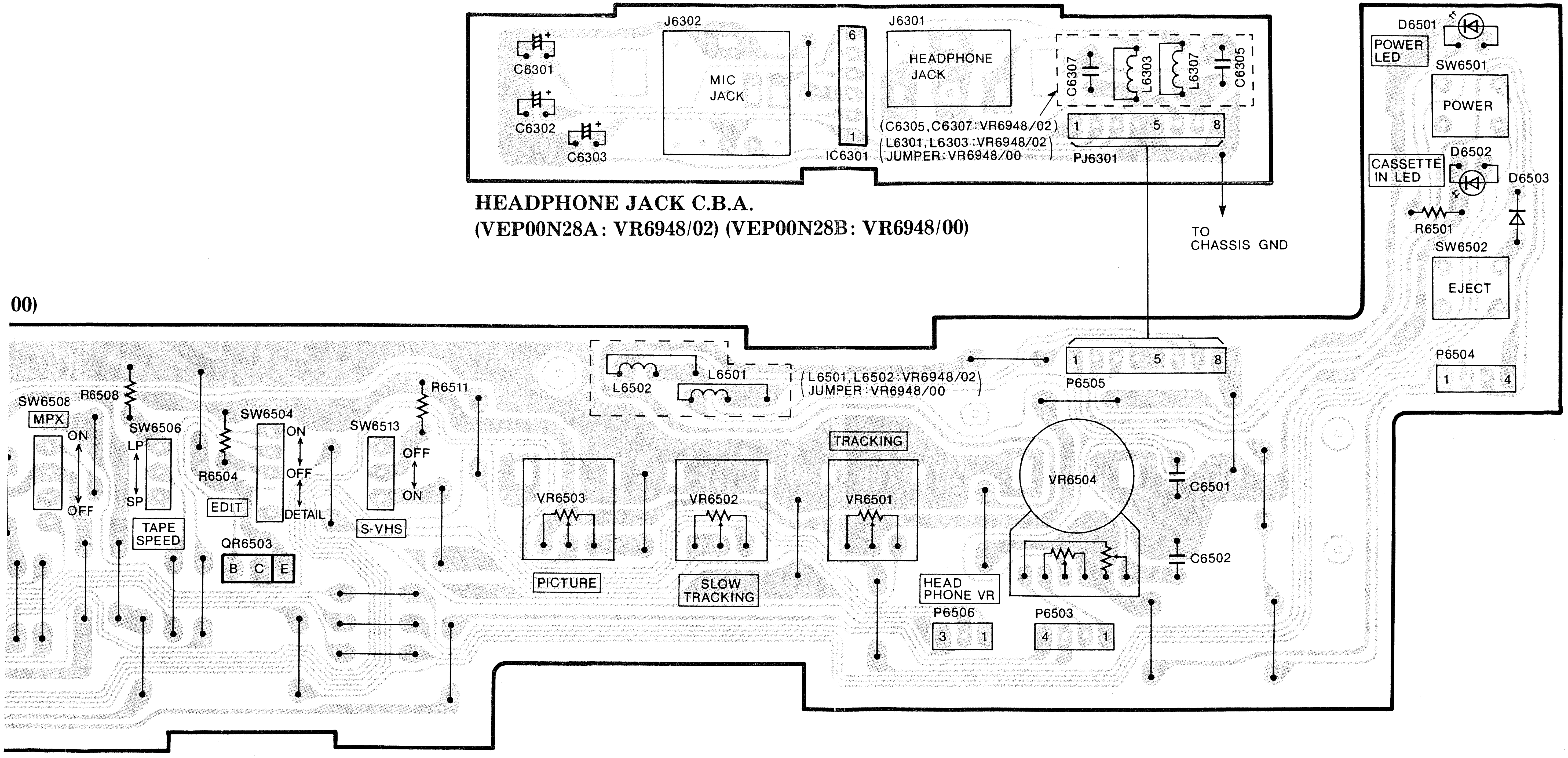
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


C6301
C6302
C6303
J6302
MIC
JACK
6
1
IC6301
J6301
HE
JA
(C6305,
L6301,
JUMPE

HEADPHONE JACK C.B.A.
(VEP00N28A: VR6948/02) (VEP00N28B: VR694

OPERATION C.B.A. (VEP06567A: VR6948/02) (VEP06567B: VR6948/00)

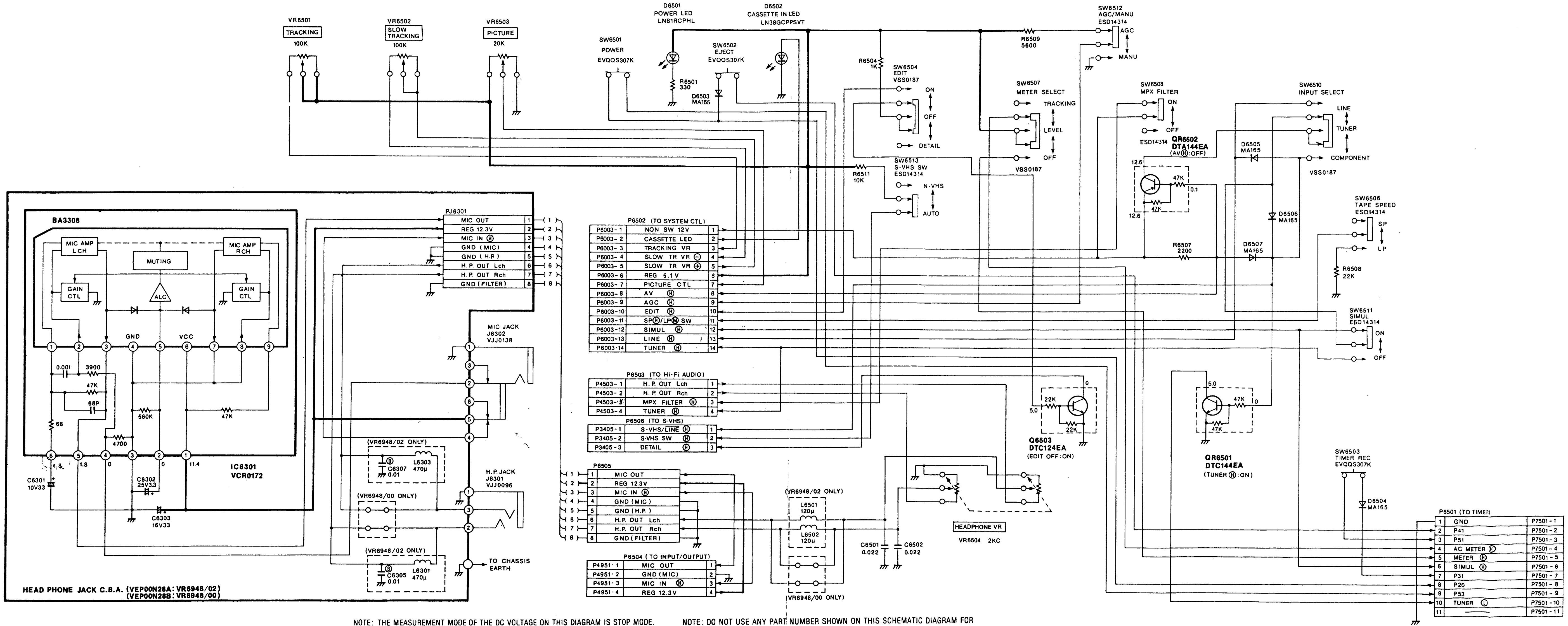

D6505
SW6510
INPUT SEL
D6506
LINE
TUNE
COMP
SW6503
TIMER
REC
QR6501
B C E
QR6502
B C E
D6507
D6504
R6507
P6501
11 10 5 1
P6502
14 10 5 1
SW6511
ON
OFF
SIMUL
SW8512
MANU
AGC
AGC/
MANU
R6509
SW6507
TRACK
LEVEL
OFF
MATTER
SEL
SW6508
MPX
ON
OFF
R6508
SW6506
LP
SP
TAPE
SPEED
R6504
EDIT
QR6503
B C E
SW6504
ON
OFF
DETAIL
SW6513
OFF
ON
S-VHS
R6511
L6502
L6501
(L6501, L6502 : VR6
JUMPER : VR6948/
VR6503
PICTURE
VR6502
SLOW
TRACKING
TRACKING
VR6501



HEADPHONE JACK C.B.A.
(VEP00N28A: VR6948/02) (VEP00N28B: VR6948/00)

00)

J6302
MIC JACK
C6301
C6302
C6303
IC6301
6
1
J6301
HEADPHONE JACK
C6307
L6303
L6307
C6305
(C6305, C6307: VR6948/02)
(L6301, L6303: VR6948/02)
(JUMPER: VR6948/00)
1 5 8
PJ6301
TO CHASSIS GND
D6501
POWER LED
SW6501
POWER
CASSETTE IN LED
D6502
D6503
R6501
SW6502
EJECT
P6504
1 4
SW6508
MPX
ON
OFF
R6508
SW6506
LP
SP
TAPE SPEED
R6504
EDIT
SW6504
ON
OFF
DETAIL
QR6503
B C E
SW6513
OFF
ON
S-VHS
R6511
L6502
L6501
(L6501, L6502: VR6948/02)
(JUMPER: VR6948/00)
VR6503
PICTURE
VR6502
SLOW TRACKING
TRACKING
VR6501
1 5 8
P6505
VR6504
HEAD PHONE VR
P6506
3 1
P6503
4 1
C6501
C6502


VR6501 TRACKING 100K
VR6502 SLOW TRACKING 100K
VR6503 PICTURE 20K
SW6501 POWER EVQQS307K
D6501 POWER LED LN81RCPHL
R6501 330
D6503 MA165
SW6502 EJECT EVQQS307K
D6502 CASSETTE IN LED LN38GCPPSVT
R6504 1K
SW6504 EDIT VSS0187
ON
OFF
DETAIL
R6511 10K
SW6513 S-VHS SW ESD14314
N-VHS
AUTO
R6509 5600
SW6512 AGC/MANU ESD14314
AGC
MANU
SW6507 METER SELECT
TRACKING
LEVEL
OFF
VSS0187
SW6508 MPX FILTER
ON
OFF
ESD14314
QR6502 DTA144EA (AV Ⓗ:OFF)
12.6
47K
0.1
R6507 2200
D6505 MA165
D6506 MA165
D6507 MA165
SW6510 INPUT SELECT
LINE
TUNER
COMPONENT
VSS0187
SW6506 TAPE SPEED ESD14314
SP
LP
R6508 22K
SW6511 SIMUL ESD14314
ON
OFF
BA3308
MIC AMP LCH
MIC AMP RCH
MUTING
GAIN CTL
ALC
GND
VCC
0.001
3900
47K
68P
560K
4700
68
1.8
0
11.4
C6301 10V33
C6302 25V3.3
C6303 16V33
IC6301 VCR0172
PJ6301
1 MIC OUT
2 REG 12.3V
3 MIC IN Ⓛ
4 GND (MIC)
5 GND (H.P.)
6 H.P. OUT Lch
7 H.P. OUT Rch
8 GND (FILTER)
MIC JACK J6302 VJJ0138
(VR6948/02 ONLY)
L6303 470μ
C6307 0.01
(VR6948/00 ONLY)
H.P. JACK J6301 VJJ0096
C6305 0.01
L6301 470μ
TO CHASSIS EARTH
HEAD PHONE JACK C.B.A. (VEP00N28A: VR6948/02)
(VEP00N28B: VR6948/00)
P6502 (TO SYSTEM CTL)
P6003-1 NON SW 12V 1
P6003-2 CASSETTE LED 2
P6003-3 TRACKING VR 3
P6003-4 SLOW TR VR ⊖ 4
P6003-5 SLOW TR VR ⊕ 5
P6003-6 REG 5.1V 6
P6003-7 PICTURE CTL 7
P6003-8 AV Ⓗ 8
P6003-9 AGC Ⓗ 9
P6003-10 EDIT Ⓗ 10
P6003-11 SPⒽ/LPⓁ SW 11
P6003-12 SIMUL Ⓗ 12
P6003-13 LINE Ⓗ 13
P6003-14 TUNER Ⓗ 14
P6503 (TO Hi-Fi AUDIO)
P4503-1 H.P. OUT Lch 1
P4503-2 H.P. OUT Rch 2
P4503-3 MPX FILTER Ⓗ 3
P4503-4 TUNER Ⓗ 4
P6506 (TO S-VHS)
P3405-1 S-VHS/LINE Ⓗ 1
P3405-2 S-VHS SW Ⓗ 2
P3405-3 DETAIL Ⓗ 3
P8505
1 MIC OUT
2 REG 12.3V
3 MIC IN Ⓗ
4 GND (MIC)
5 GND (H.P.)
6 H.P. OUT Lch
7 H.P. OUT Rch
8 GND (FILTER)
P6504 (TO INPUT/OUTPUT)
P4951-1 MIC OUT 1
P4951-2 GND (MIC) 2
P4951-3 MIC IN Ⓗ 3
P4951-4 REG 12.3V 4
(VR6948/02 ONLY)
L6501 120μ
L6502 120μ
(VR6948/00 ONLY)
C6501 0.022
C6502 0.022
HEADPHONE VR
VR6504 2KC
Q6503 DTC124EA (EDIT OFF:ON)
5.0
22K
0
QR6501 DTC144EA (TUNER Ⓗ:ON)
SW6503 TIMER REC EVQQS307K
D6504 MA165
P8501 (TO TIMER)
1 GND P7501-1
2 P41 P7501-2
3 P51 P7501-3
4 AC METER Ⓛ P7501-4
5 METER Ⓗ P7501-5
6 SIMUL Ⓗ P7501-6
7 P31 P7501-7
8 P20 P7501-8
9 P53 P7501-9
10 TUNER Ⓛ P7501-10
11 P7501-11

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S-VHS Circuit board assembly

BP3408	4822 265 40855	CONNECTOR
BP3410	4822 265 30692	CONNECTOR
BP3411	4822 265 40861	CONNECTOR
BP3412	4822 265 30693	CONNECTOR
P1201	4822 267 40838	CONNECTOR
P3101	4822 265 30688	CONNECTOR
P3301	4822 265 30689	CONNECTOR
P3401	4822 265 30688	CONNECTOR
P3402	4822 265 30688	CONNECTOR
P3403	4822 265 40858	CONNECTOR
P3404	4822 265 30387	CONNECTOR
P3405	4822 265 30429	CONNECTOR
P3407	4822 265 30687	CONNECTOR
P3409	4822 265 40857	CONNECTOR
P3802	4822 267 40837	CONNECTOR
P3804	4822 267 50897	CONNECTOR
P8301	4822 267 50902	CONNECTOR

X3301	4822 242 72507	CRYSTAL OSCILLATOR

C3101	4822 124 40834	E.CAP 25V 3.3 µF
C3102	4822 124 21513	E.CAP 6.3V 47 µF
C3103	4822 122 32247	C.CAP 50V 0.01 µF
C3104	4822 122 32247	C.CAP 50V 0.01 µF
C3105	4822 121 90053	S.CAP 16V 0.1 µF
C3107	4822 122 32224	C.CAP 50V 56 pF
C3108	4822 122 32234	C.CAP 50V 1800 pF
C3109	4822 124 21533	E.CAP 16V 10 µF
C3110	4822 122 32306	C.CAP 50V 82 pF
C3111	4822 124 21513	E.CAP 6.3V 47 µF
C3112	4822 122 32247	C.CAP 50V 0.01 µF
C3113	4822 122 32247	C.CAP 50V 0.01 µF
C3114	4822 122 32247	C.CAP 50V 0.01 µF
C3115	4822 122 32247	C.CAP 50V 0.01 µF
C3116	4822 121 90053	S.CAP 16V 0.1 µF
C3117	4822 122 32234	C.CAP 50V 1800 pF
C3122	4822 122 32224	C.CAP 50V 56 pF
C3124	4822 122 32205	C.CAP 50V 680 pF
C3125	4822 122 32213	C.CAP 50V 15 pF
C3126	0000 000 00000	
C3128	4822 122 32247	C.CAP 50V 0.01 µF
C3130	4822 122 32359	C.CAP 50V 27 pF
C3134	4822 122 33949	C.CAP 50V 150 pF
C3135	4822 122 33951	C.CAP 50V 180 pF
C3136	4822 122 32359	C.CAP 50V 27 pF
C3137	4822 122 32247	C.CAP 50V 0.01 µF
C3138	0000 000 00000	
C3139	4822 122 32247	C.CAP 50V 0.01 µF
C3143	4822 122 32247	C.CAP 50V 0.01 µF
C3145	4822 122 32235	C.CAP 50V 270 pF
C3201	4822 122 32359	C.CAP 50V 27 pF
C3202	4822 122 32247	C.CAP 50V 0.01 µF
C3203	4822 122 32209	C.CAP 50V 10 pF
C3204	4822 122 32219	C.CAP 50V 39 pF
C3205	4822 122 32247	C.CAP 50V 0.01 µF
C3206	4822 122 32247	C.CAP 50V 0.01 µF
C3207	4822 124 21536	E.CAP 50V 2.2 µF
C3208	4822 122 32308	C.CAP 50V 330 pF
C3209	4822 124 21536	E.CAP 50V 2.2 µF
C3210	0000 000 00000	
C3211	4822 124 22828	E.CAP 16V 47 µF
C3212	4822 121 90053	S.CAP 16V 0.1 µF
C3213	4822 122 32247	C.CAP 50V 0.01 µF
C3214	4822 122 32247	C.CAP 50V 0.01 µF
C3215	4822 122 32247	C.CAP 50V 0.01 µF
C3301	4822 121 42166	P.CAP 50V 0.27 µF
C3302	4822 124 21555	E.CAP 10V 220 µF
C3303	4822 121 51461	P.CAP 50V 2700 pF
C3304	4822 124 40839	E.CAP 50V 1 µF
C3305	4822 122 32213	C.CAP 50V 15 pF
C3306	4822 122 32224	C.CAP 50V 56 pF
C3307	4822 122 32213	C.CAP 50V 15 pF
C3311	4822 124 40834	E.CAP 25V 3.3 µF
C3312	4822 124 40839	E.CAP 50V 1 µF
C3313	4822 124 21524	E.CAP 50V 1 µF
C3314	4822 124 22827	E.CAP 16V 33 µF
C3315	4822 122 32247	C.CAP 50V 0.01 µF
C3316	4822 124 40839	E.CAP 50V 1 µF
C3317	4822 124 40839	E.CAP 50V 1 µF
C3318	4822 122 32247	C.CAP 50V 0.01 µF
C3319	4822 122 32247	C.CAP 50V 0.01 µF
C3320	4822 121 42179	P.CAP 50V 0.1 µF
C3321	4822 124 22827	E.CAP 16V 33 µF
C3322	4822 122 32247	C.CAP 50V 0.01 µF
C3323	4822 122 32247	C.CAP 50V 0.01 µF
C3324	0000 000 00000	
C3325	0000 000 00000	
C3326	4822 122 32247	C.CAP 50V 0.01 µF
C3327	4822 122 32213	C.CAP 50V 15 pF
C3328	4822 122 32247	C.CAP 50V 0.01 µF
C3330	4822 122 32247	C.CAP 50V 0.01 µF
C3401	4822 124 21513	E.CAP 6.3V 47 µF
C3402	4822 121 42179	P.CAP 50V 0.1 µF
C3403	4822 124 21513	E.CAP 6.3V 47 µF
C3404	4822 121 42262	P.CAP 50V 0.033 µF
C3405	4822 121 51458	P.CAP 50V 1000 pF
C3406	4822 124 22877	E.CAP 6.3V 220 µF
C3407	4822 122 32247	C.CAP 50V 0.01 µF
C3408	4822 124 40836	E.CAP 25V 4.7 µF
C3409	0000 000 00000	
C3410	0000 000 00000	
C3411	4822 121 42262	P.CAP 50V 0.033 µF
C3412	0000 000 00000	
C3413	0000 000 00000	
C3414	4822 124 21513	E.CAP 6.3V 47 µF
C3415	4822 124 40836	E.CAP 25V 4.7 µF
C3416	4822 124 40836	E.CAP 25V 4.7 µF
C3417	4822 124 21513	E.CAP 6.3V 47 µF
C3418	0000 000 00000	
C3419	4822 122 32437	C.CAP 50V 270 pF
C3420	4822 122 32437	C.CAP 50V 270 pF
C3421	4822 122 32247	C.CAP 50V 0.01 µF
C3422	4822 124 21513	E.CAP 6.3V 47 µF
C3423	4822 122 32437	C.CAP 50V 270 pF
C3424	0000 000 00000	
C3425	4822 122 32306	C.CAP 50V 82 pF
C3426	4822 122 32437	C.CAP 50V 270 pF
C3427	4822 122 32437	C.CAP 50V 270 pF
C3428	4822 122 32247	C.CAP 50V 0.01 µF
C3429	0000 000 00000	
C3430	0000 000 00000	
C3431	4822 124 21513	E.CAP 6.3V 47 µF
C3432	4822 121 42179	P.CAP 50V 0.1 µF
C3433	4822 124 21513	E.CAP 6.3V 47 µF
C3435	4822 124 21513	E.CAP 6.3V 47 µF

C3436	4822 122 32247	C.CAP 50V 0.01 µF
C3437	4822 122 32247	C.CAP 50V 0.01 µF
C3438	4822 124 21513	E.CAP 6.3V 47 µF
C3439	4822 124 21513	E.CAP 6.3V 47 µF
C3442	4822 122 32247	C.CAP 50V 0.01 µF
C3443	4822 121 42179	P.CAP 50V 0.1 µF
C3444	4822 121 42179	P.CAP 50V 0.1 µF
C3445	4822 122 32247	C.CAP 50V 0.01 µF
C3446	4822 124 22878	E.CAP 10V 470 µF
C3447	4822 124 22745	E.CAP 6.3V 470 µF
C3448	4822 124 22825	E.CAP 10V 47 µF
C3449	4822 124 22828	E.CAP 16V 47 µF
C3450	4822 121 42179	P.CAP 50V 0.1 µF
C3451	4822 124 22745	E.CAP 6.3V 470 µF
C3452	4822 122 32247	C.CAP 50V 0.01 µF
C3453	4822 124 21513	E.CAP 6.3V 47 µF
C3454	4822 122 32247	C.CAP 50V 0.01 µF
C3455	4822 124 21513	E.CAP 6.3V 47 µF
C3456	4822 122 32247	C.CAP 50V 0.01 µF
C3457	4822 122 32247	C.CAP 50V 0.01 µF
C3458	4822 124 21533	E.CAP 16V 10 µF
C3459	4822 122 32247	C.CAP 50V 0.01 µF
C3460	4822 122 32247	C.CAP 50V 0.01 µF
C3461	4822 122 32247	C.CAP 50V 0.01 µF
C3462	4822 122 33947	C.CAP 50V 8 pF
C3463	4822 122 32247	C.CAP 50V 0.01 µF
C3464	0000 000 00000	
C3465	4822 122 32247	C.CAP 50V 0.01 µF
C3466	4822 122 32247	C.CAP 50V 0.01 µF
C3467	4822 122 32247	C.CAP 50V 0.01 µF
C3468	4822 124 21513	E.CAP 6.3V 47 µF
C3469	4822 122 32205	C.CAP 50V 680 pF
C3470	0000 000 00000	
C3471	4822 124 22876	E.CAP 6.3V 22 µF
C3472	4822 122 32197	C.CAP 50V 1000 pF
C3473	4822 122 32197	C.CAP 50V 1000 pF
C3474	4822 122 32247	C.CAP 50V 0.01 µF
C3475	4822 122 32247	C.CAP 50V 0.01 µF
C3476	4822 122 32306	C.CAP 50V 82 pF
C3477	4822 124 21513	E.CAP 6.3V 47 µF
C3478	4822 124 40839	E.CAP 50V 1 µF
C3479	4822 124 21533	E.CAP 16V 10 µF
C3480	4822 122 32306	C.CAP 50V 82 pF
C3481	4822 122 32301	C.CAP 50V 47 pF
C3482	4822 122 32208	C.CAP 50V 6 pF
C3483	4822 122 32301	C.CAP 50V 47 pF
C3484	4822 122 32227	C.CAP 50V 68 pF
C3485	4822 122 32245	C.CAP 50V 150 pF
C3486	4822 122 32219	C.CAP 50V 39 pF
C8201	4822 122 32247	C.CAP 50V 0.01 µF
C8202	4822 122 32219	C.CAP 50V 39 pF
C8203	4822 122 32197	C.CAP 50V 1000 pF
C8204	4822 122 32309	C.CAP 50V 390 pF
C8205	4822 122 32247	C.CAP 50V 0.01 µF
C8206	4822 122 32247	C.CAP 50V 0.01 µF
C8207	4822 122 32247	C.CAP 50V 0.01 µF
C8208	4822 121 90053	S.CAP 16V 0.1 µF
C8209	4822 124 22825	E.CAP 10V 47 µF
C8210	4822 122 32247	C.CAP 50V 0.01 µF
C8211	4822 121 42261	P.CAP 50V 0.027 µF
C8212	4822 121 42255	P.CAP 50V 0.018 µF
C8213	4822 121 51462	P.CAP 50V 0.39 µF
C8214	4822 121 42166	P.CAP 50V 0.27 µF
C8215	4822 122 32247	C.CAP 50V 0.01 µF
C8216	4822 122 32247	C.CAP 50V 0.01 µF
C8217	4822 122 32247	C.CAP 50V 0.01 µF
C8218	4822 122 32247	C.CAP 50V 0.01 µF
C8219	4822 122 32247	C.CAP 50V 0.01 µF
C8220	4822 124 21533	E.CAP 16V 10 µF
C8221	4822 122 32359	C.CAP 50V 27 pF

D3101	4822 130 32362	MA165
D3102	4822 130 32362	MA165
D3103	4822 130 32362	MA165
D3201	4822 130 32362	MA165
D3202	4822 130 32362	MA165
D3203	4822 130 32362	MA165
D3204	4822 130 32362	MA165
D3301	4822 130 32362	MA165
D3302	4822 130 32362	MA165
D3304	4822 130 32362	MA165
D3401	4822 130 80181	MA4033
D3403	4822 130 81394	MA4039M
D3404	4822 130 32362	MA165
D3405	4822 130 32362	MA165
D3406	4822 130 33961	1SS99
D3407	4822 130 32362	MA165
D3408	4822 130 32735	MA27W
D3409	4822 130 32735	MA27W
D8201	4822 130 32362	MA165
D8202	4822 130 32362	MA165
D8203	4822 130 32362	MA165
D8204	4822 130 32362	MA165
D8205	4822 130 32362	MA165
D8206	4822 130 32362	MA165
D8207	4822 130 32362	MA165
D8208	4822 130 32362	MA165

DL8201	4822 320 40205	DELAY
DL8202	4822 320 40204	DELAY
FL3101	4822 242 72499	FILTER
FL3102	4822 242 72496	FILTER
FL3201	4822 242 72498	FILTER
FL3401	4822 242 72506	FILTER
FL3402	4822 242 72497	FILTER
FL3403	4822 218 30488	FILTER

IC3101	4822 209 60585	VCR0185A
IC3301	4822 209 60583	UPC1517CA
IC3302	4822 209 60582	TL8705P
IC3303	4822 209 60375	AN78L09
IC3401	4822 209 60581	M51647SP
IC3402	4822 209 82796	AN6306
IC3403	4822 209 60621	VC2031DP
IC3404	4822 209 72519	AN3321K
IC3405	4822 209 60486	AN6308
IC8201	4822 209 60575	AN3594K
IC8202	4822 209 80797	LM393P
IC8203	4822 209 60486	AN6308

L3101	4822 157 51975
L3102	4822 157 51981
L3103	4822 157 51978
L3104	4822 157 51975
L3105	4822 157 60013
L3108	4822 157 51975
L3111	4822 157 51975
L3112	4822 157 52083
L3116	4822 157 60014
L3117	4822 157 60015
L3118	4822 157 51975
L3201	4822 157 51985
L3202	4822 157 51982
L3203	4822 157 60012
L3204	4822 157 51975
L3301	4822 157 51975
L3302	4822 157 51985
L3303	4822 157 51985
L3306	4822 157 51975
L3307	4822 157 60012
L3308	4822 157 51975
L3401	4822 157 51975
L3402	4822 157 51975
L3403	4822 157 60011
L3404	4822 157 51975
L3405	4822 157 51996
L3406	4822 157 51975
L3407	4822 157 51975
L3408	4822 157 51975
L3409	4822 157 51975
L3410	4822 157 51995
L3411	4822 157 51982
L3412	4822 157 51975
L3414	4822 157 51985
L8201	4822 157 51975
L8202	4822 157 51991
L8203	4822 157 51991
L8205	4822 157 53996
L8206	4822 157 52164

Q3101	4822 130 41605	2SD636
Q3102	4822 130 41605	2SD636
Q3103	4822 130 42253	2SC2206
Q3104	4822 130 42253	2SC2206
Q3105	4822 130 42253	2SC2206
Q3106	4822 130 42251	2SB641
Q3107	4822 130 42253	2SC2206
Q3108	4822 130 42253	2SC2206
Q3110	4822 130 42253	2SC2206
Q3111	4822 130 41605	2SD636
Q3112	4822 130 42253	2SC2206
Q3113	4822 130 42253	2SC2206
Q3114	4822 130 41605	2SD636
Q3117	4822 130 42253	2SC2206
Q3118	4822 130 41605	2SD636
Q3119	4822 130 42251	2SB641
Q3201	4822 130 42253	2SC2206
Q3202	4822 130 42253	2SC2206
Q3203	4822 130 42253	2SC2206
Q3206	4822 130 42253	2SC2206
Q3207	4822 130 42253	2SC2206
Q3208	4822 130 42253	2SC2206
Q3301	4822 130 41605	2SD636
Q3302	4822 130 42253	2SC2206
Q3303	4822 130 42251	2SB641
Q3304	4822 130 42251	2SB641
Q3305	4822 130 42251	2SB641
Q3401	4822 130 42251	2SB641
Q3402	4822 130 42251	2SB641
Q3403	4822 130 42251	2SB641
Q3404	4822 130 42251	2SB641
Q3405	4822 130 42251	2SB641
Q3406	4822 130 41605	2SD636
Q3407	4822 130 42251	2SB641
Q3408	4822 130 41605	2SD636
Q3409	4822 130 42251	2SB641
Q3410	4822 130 42253	2SC2206
Q3411	4822 130 61622	2SA1254
Q3412	4822 130 42251	2SB641
Q3413	4822 130 41605	2SD636
Q3414	4822 130 41605	2SD636
Q3415	4822 130 42684	2SD1273
Q3416	4822 130 41605	2SD636
Q3417	4822 130 41605	2SD636
Q3418	4822 130 41605	2SD636
Q3419	4822 130 41605	2SD636
Q3420	4822 130 42684	2SD1273
Q3421	4822 130 41605	2SD636
Q3422	4822 130 42251	2SB641
Q8201	4822 130 61621	2AC2206
Q8202	4822 130 41605	2SD636
Q8203	4822 130 41605	2SD636
Q8204	4822 130 61622	2SA1254
Q8205	4822 130 61622	2SA1254
QR3101	4822 111 91222	UN1112
QR3103	4822 111 91319	UN1213
QR3106	4822 111 91319	UN1213
QR3111	4822 130 60259	2SD1676
QR3115	4822 111 91222	UN1112
QR3301	4822 130 61585	UN1111
QR3302	4822 111 91319	UN1213
QR3401	4822 111 91319	UN1213
QR3403	4822 111 91222	UN1112
QR3405	4822 130 61619	IN1213
QR8201	4822 111 91319	UN1213

R3101	4822 116 52283	C.RES 4.7 kΩ
R3102	4822 116 52269	C.RES 3.3 kΩ
R3103	4822 116 52226	C.RES 560
R3104	4822 116 52217	C.RES 270
R3105	4822 116 52204	C.RES 1 kΩ
R3106	4822 116 52204	C.RES 1 kΩ
R3107	4822 116 52256	C.RES 2.2 kΩ
R3108	4822 116 52256	C.RES 2.2 kΩ
R3109	4822 116 52222	C.RES 390
R3112	4822 116 52226	C.RES 560
R3113	4822 116 52219	C.RES 330
R3114	4822 116 52228	C.RES 680
R3115	4822 116 52211	C.RES 150
R3116	4822 116 52289	C.RES 5.6 kΩ
R3117	4822 116 52224	C.RES 470
R3118	4822 116 52219	C.RES 330
R3119	4822 116 52276	C.RES 330 kΩ
R3120	4822 116 52207	C.RES 1.2 kΩ
R3121	4822 116 52204	C.RES 1 kΩ
R3122	4822 116 52224	C.RES 470
R3123	4822 116 52233	C.RES 10 kΩ
R3124	4822 116 52276	C.RES 3.9 kΩ
R3125	4822 116 52207	C.RES 1.2 kΩ
R3126	4822 116 52226	C.RES 560
R3127	4822 116 52213	C.RES 180
R3131	4822 116 52233	C.RES 10 kΩ
R3132	4822 116 52233	C.RES 10 kΩ
R3133	4822 116 52204	C.RES 1 kΩ
R3134	4822 116 52233	C.RES 10 kΩ
R3136	4822 116 52303	C.RES 8.2 kΩ
R3137	4822 116 52226	C.RES 560
R3138	4822 116 52226	C.RES 560
R3140	4822 116 52231	C.RES 820
R3141	4822 116 52231	C.RES 820
R3148	4822 116 52204	C.RES 1 kΩ

R3149	4822 116 52289	C.RES 5.6 kΩ
R3150	4822 116 52276	C.RES 3.9 kΩ
R3151	4822 116 52289	C.RES 5.6 kΩ
R3152	4822 116 52226	C.RES 560
R3155	4822 116 52243	C.RES 1.5 kΩ
R3158	4822 116 52269	C.RES 3.3 kΩ
R3160	4822 116 52222	C.RES 390
R3166	4822 116 52231	C.RES 820
R3167	4822 116 52231	C.RES 820
R3168	4822 116 52233	C.RES 10 kΩ
R3169	4822 116 52204	C.RES 1 kΩ
R3170	4822 116 52257	C.RES 22 kΩ
R3171	4822 116 52226	C.RES 560
R3172	4822 116 52304	C.RES 82 kΩ
R3173	4822 116 52304	C.RES 82 kΩ
R3176	4822 116 52202	C.RES 82
R3201	4822 116 52257	C.RES 22 kΩ
R3202	4822 116 52303	C.RES 8.2 kΩ
R3203	4822 116 52204	C.RES 1 kΩ
R3204	4822 116 52204	C.RES 1 kΩ
R3205	4822 116 52204	C.RES 1 kΩ
R3206	4822 116 52256	C.RES 2.2 kΩ
R3207	4822 116 52204	C.RES 1 kΩ
R3208	4822 116 52249	C.RES 1.8 kΩ
R3209	4822 116 52233	C.RES 10 kΩ
R3210	4822 116 52276	C.RES 3.9 kΩ
R3211	4822 116 52204	C.RES 1 kΩ
R3212	4822 116 52228	C.RES 680
R3213	4822 116 52195	C.RES 47
R3214	4822 116 52204	C.RES 1 kΩ
R3215	4822 116 52228	C.RES 680
R3216	4822 116 52197	C.RES 56
R3217	4822 116 52256	C.RES 2.2 kΩ
R3218	4822 116 52204	C.RES 1 kΩ
R3219	4822 116 52204	C.RES 1 kΩ
R3220	4822 116 52233	C.RES 10 kΩ
R3221	4822 116 52283	C.RES 4.7 kΩ
R3222	4822 116 52228	C.RES 680
R3223	4822 116 52204	C.RES 1 kΩ
R3224	4822 116 52204	C.RES 1 kΩ
R3225	4822 116 52204	C.RES 1 kΩ
R3226	4822 116 52204	C.RES 1 kΩ
R3227	4822 116 52283	C.RES 4.7 kΩ
R3228	4822 116 52283	C.RES 4.7 kΩ
R3229	4822 116 52213	C.RES 180
R3230	4822 116 52191	C.RES 33
R3301	4822 116 52238	C.RES 12 kΩ
R3302	4822 116 52251	C.RES 18 kΩ
R3303	4822 116 52204	C.RES 1 kΩ
R3304	4822 116 52239	C.RES 120 kΩ
R3305	4822 116 52207	C.RES 1.2 kΩ
R3306	4822 116 52233	C.RES 10 kΩ
R3307	4822 116 52228	C.RES 680
R3308	4822 116 52231	C.RES 820
R3309	4822 116 52207	C.RES 1.2 kΩ
R3310	4822 116 52175	C.RES 100
R3311	4822 116 52303	C.RES 8.2 kΩ
R3312	4822 116 52233	C.RES 10 kΩ
R3313	4822 116 52228	C.RES 680
R3314	4822 116 52256	C.RES 2.2 kΩ
R3316	4822 116 52204	C.RES 1 kΩ
R3317	4822 116 52215	C.RES 220
R3318	4822 116 40157	THERM 33 kΩ
R3319	4822 116 52256	C.RES 2.2 kΩ
R3321	4822 116 52204	C.RES 1 kΩ
R3322	4822 116 52249	C.RES 1.8 kΩ
R3323	4822 116 52256	C.RES 2.2 kΩ
R3324	4822 116 52243	C.RES 1.5 kΩ
R3401	4822 116 52204	C.RES 1 kΩ
R3402	4822 116 52207	C.RES 1.2 kΩ
R3403	4822 116 52204	C.RES 1 kΩ
R3404	4822 116 52217	C.RES 270
R3405	4822 116 52231	C.RES 820
R3406	4822 116 52204	C.RES 1 kΩ
R3407	4822 116 52213	C.RES 180
R3408	4822 116 52257	C.RES 22 kΩ
R3409	4822 116 52233	C.RES 10 kΩ
R3410	4822 116 52252	C.RES 180 kΩ
R3411	4822 116 52245	C.RES 150 kΩ
R3412	4822 116 52233	C.RES 10 kΩ
R3413	4822 116 52234	C.RES 100 kΩ
R3414	4822 116 52215	C.RES 220
R3415	4822 116 52204	C.RES 1 kΩ
R3416	4822 116 52204	C.RES 1 kΩ
R3417	4822 116 52204	C.RES 1 kΩ
R3418	4822 116 52256	C.RES 2.2 kΩ
R3419	4822 116 52204	C.RES 1 kΩ
R3420	4822 116 52204	C.RES 1 kΩ
R3421	4822 116 52256	C.RES 2.2 kΩ
R3422	4822 116 52224	C.RES 470
R3423	4822 116 52224	C.RES 470
R3424	4822 116 52201	C.RES 75
R3425	4822 116 52201	C.RES 75
R3426	4822 116 52204	C.RES 1 kΩ
R3427	4822 116 52204	C.RES 1 kΩ
R3428	4822 116 52291	C.RES 56 kΩ
R3429	4822 116 52204	C.RES 1 kΩ
R3430	4822 116 52204	C.RES 1 kΩ
R3431	4822 116 52256	C.RES 2.2 kΩ
R3432	4822 116 52233	C.RES 10 kΩ
R3433	4822 116 52296	C.RES 3.8 kΩ
R3434	4822 116 52204	C.RES 1 kΩ
R3435	4822 116 52228	C.RES 680
R3436	4822 116 52228	C.RES 680
R3437	4822 116 52219	C.RES 330
R3438	4822 116 52204	C.RES 1 kΩ
R3439	4822 116 52204	C.RES 1 kΩ
R3440	4822 116 52219	C.RES 330
R3441	4822 116 52204	C.RES 1 kΩ
R3442	4822 116 52269	C.RES 3.3 kΩ
R3443	4822 116 52243	C.RES 1.5 kΩ
R3444	4822 116 52204	C.RES 1 kΩ
R3445	4822 116 52269	C.RES 3.3 kΩ
R3446	4822 116 52204	C.RES 1 kΩ
R3447	4822 116 52224	C.RES 470
R3448	4822 116 52204	C.RES 1 kΩ
R3449	4822 116 52243	C.RES 1.5 kΩ
R3450	4822 116 52304	C.RES 82 kΩ
R3451	4822 116 52224	C.RES 470
R3452	4822 116 52269	C.RES 3.3 kΩ
R3453	4822 116 52269	C.RES 3.3 kΩ
R3454	4822 116 52204	C.RES 1 kΩ
R3455	4822 116 52222	C.RES 390
R3456	4822 116 52207	C.RES 1.2 kΩ
R3457	4822 116 52204	C.RES 1 kΩ
R3458	4822 116 52204	C.RES 1 kΩ
R3459	4822 116 52257	C.RES 22 kΩ
R3460	4822 116 52257	C.RES 22 kΩ
R3461	4822 116 52269	C.RES 3.3 kΩ
R3462	4822 116 52226	C.RES 560
R3463	4822 116 52257	C.RES 22 kΩ
R3464	4822 116 52257	C.RES 22 kΩ
R3465	4822 116 52269	C.RES 3.3 kΩ
R3466	4822 116 52226	C.RES 560
R3467	4822 116 52224	C.RES 470
R3468	4822 116 52204	C.RES 1 kΩ
R3469	4822 116 52249	C.RES 1.8 kΩ
R3470	4822 116 52204	C.RES 1 kΩ
R3471	4822 116 52186	C.RES 22
R3472	4822 116 52204	C.RES 1 kΩ
R3473	4822 116 52222	C.RES 390
R3474	4822 116 52204	C.RES 1 kΩ
R3475	4822 116 52256	C.RES 2.2 kΩ
R3476	4822 116 52243	C.RES 1.5 kΩ
R3477	4822 116 52224	C.RES 470
R3478	4822 116 52224	C.RES 470
R3479	4822 116 52204	C.RES 1 kΩ
R3480	4822 116 52204	C.RES 1 kΩ
R3481	4822 116 52233	C.RES 10 kΩ
R3482	4822 116 52204	C.RES 1 kΩ
R3483	4822 116 52204	C.RES 1 kΩ
R3484	4822 116 52204	C.RES 1 kΩ
R3485	4822 116 52207	C.RES 1.2 kΩ
R3486	4822 116 52207	C.RES 1.2 kΩ
R3487	4822 116 52207	C.RES 1.2 kΩ
R3488	4822 116 52244	C.RES 15 kΩ
R3489	4822 116 52207	C.RES 1.2 kΩ
R3490	4822 116 52217	C.RES 270
R3491	4822 116 52207	C.RES 1.2 kΩ
R3492	4822 116 52233	C.RES 10 kΩ
R3493	4822 116 52233	C.RES 10 kΩ
R3494	4822 116 52226	C.RES 560
R3495	4822 116 52385	C.RES 1.0
R3496	4822 116 52204	C.RES 1 kΩ
R3497	4822 116 52204	C.RES 1 kΩ
R3499	4822 116 52231	C.RES 820
R3501	4822 116 52303	C.RES 8.2 kΩ
R3502	4822 116 52289	C.RES 5.6 kΩ
R3503	4822 116 52296	C.RES 6.8 kΩ
R3504	4822 116 52303	C.RES 8.2 kΩ
R3506	4822 116 52233	C.RES 10 kΩ
R3507	4822 116 52204	C.RES 1 kΩ
R3508	4822 116 52215	C.RES 220
R3509	4822 116 52271	C.RES 33 kΩ
R3510	4822 116 52222	C.RES 390
R8201	4822 116 52297	C.RES 68 kΩ
R8202	4822 116 52233	C.RES 10 kΩ
R8203	4822 116 52258	C.RES 220 kΩ
R8204	4822 116 52207	C.RES 1.2 kΩ
R8205	4822 116 52204	C.RES 1 kΩ
R8206	4822 116 52251	C.RES 18 kΩ
R8207	4822 116 52244	C.RES 15 kΩ
R8208	4822 116 52207	C.RES 1.2 kΩ
R8209	4822 116 52217	C.RES 270
R8210	4822 116 52257	C.RES 22 kΩ
R8211	4822 116 52303	C.RES 8.2 kΩ
R8212	4822 116 52289	C.RES 5.6 kΩ
R8213	4822 116 52284	C.RES 47 kΩ
R8214	4822 116 52211	C.RES 150
R8215	4822 116 52289	C.RES 5.6 kΩ
R8216	4822 116 52233	C.RES 10 kΩ
R8217	4822 116 52297	C.RES 68 kΩ
R8218	4822 116 52291	C.RES 56 kΩ
R8219	4822 116 52252	C.RES 180 kΩ
R8220	4822 116 52234	C.RES 100 kΩ
R8221	4822 116 52252	C.RES 180 kΩ
R8222	4822 116 52276	C.RES 330 kΩ
R8223	4822 116 52233	C.RES 10 kΩ
R8224	4822 116 52233	C.RES 10 kΩ
R8225	4822 116 52222	C.RES 390
R8226	4822 116 52251	C.RES 18 kΩ
R8227	4822 116 52204	C.RES 1 kΩ
R8228	4822 116 52244	C.RES 15 kΩ
R8229	4822 116 52222	C.RES 390
R8230	4822 116 52207	C.RES 1.2 kΩ
R8231	4822 116 52204	C.RES 1 kΩ
R8232	4822 116 52204	C.RES 1 kΩ
R8233	4822 116 52224	C.RES 470

VR3101	4822 100 10736	V.RES 2 kΩ
VR3102	4822 101 30606	V.RES 500
VR3103	4822 101 30606	V.RES 500
VR3104	4822 100 10736	V.RES 2 kΩ
VR3301	4822 101 30608	V.RES 5 kΩ
VR3302	4822 101 10593	V.RES 1 kΩ
VR3401	4822 100 10726	V.RES 10 kΩ
VR3402	4822 101 30608	V.RES 5 kΩ
VR3403	4822 101 30608	V.RES 5 kΩ
VR3404	4822 100 10777	V.RES 50 kΩ
VR3405	4822 100 10736	V.RES 2 kΩ
VR3406	4822 100 10777	V.RES 50 kΩ
VR8201	4822 101 10593	V.RES 1 kΩ
VR8202	4822 101 10593	V.RES 1 kΩ
VR8203	4822 101 30608	V.RES 5 kΩ

Luminance chrominance separation C.B.A.

P3701	4822 265 30689	CONNECTOR 6P
P3702	4822 265 30429	CONNECTOR 3P
P3801	4822 265 30689	CONNECTOR 6P
P3802	4822 265 30687	CONNECTOR 3P
P3803	4822 265 30688	CONNECTOR 6P
P3804	4822 265 30695	CONNECTOR 5P
P3805	4822 265 30429	CONNECTOR 3P
P8301	4822 265 40838	CONNECTOR 9P

X3801	4822 242 72476	CRYSTAL OSCILLATOR

C3705	4822 124 21513	E.CAP 6.3V 47 µF
C3707	4822 122 33747	CHIP 50V 0.01 µF
C3708	4822 122 33747	CHIP 50V 0.01 µF
C3709	4822 122 33747	CHIP 50V 0.01 µF
C3710	4822 122 33747	CHIP 50V 0.01 µF
C3711	4822 122 33912	CHIP 50V 39P
C3712	4822 122 33907	CHIP 50V 22P
C3713	4822 124 40836	E.CAP 25V 4.7 µF
C3714	4822 122 33747	CHIP 50V 0.01 µF
C3715	4822 124 21513	E.CAP 6.3V 47 µF
C3716	4822 122 33747	CHIP 50V 0.01 µF
C3717	4822 122 33747	CHIP 50V 0.01 µF
C3718	4822 122 33747	CHIP 50V 0.01 µF
C3719	4822 122 33747	CHIP 50V 0.01 µF
C3720	4822 124 21513	E.CAP 6.3V 47 µF
C3721	4822 122 33747	CHIP 50V 0.01 µF
C3722	4822 122 33747	CHIP 50V 0.01 µF
C3723	4822 122 33916	CHIP 50V 120P
C3724	4822 122 33747	CHIP 50V 0.01 µF
C3725	4822 124 21533	E.CAP 16V 10 µF
C3727	4822 124 22821	E.CAP 6.3V 100 µF
C3728	4822 122 33747	CHIP 50V 0.01 µF
C3729	4822 124 21513	E.CAP 6.3V 47 µF
C3730	4822 124 22821	E.CAP 6.3V 100 µF
C3732	4822 124 22828	E.CAP 16V 47 µF
C3733	4822 124 21513	E.CAP 6.3V 47 µF
C3734	4822 122 33907	CHIP 50V 22P
C3735	4822 124 22828	E.CAP 16V 47 µF
C3736	4822 122 33747	CHIP 50V 0.01 µF
C3737	4822 124 21513	E.CAP 6.3V 47 µF
C3738	4822 122 33918	CHIP 50V 270P
C3739	4822 122 33747	CHIP 50V 0.01 µF
C3740	4822 122 32638	CHIP 50V 47P
C3741	4822 122 33908	CHIP 50V 27P
C3748	4822 124 40823	E.CAP 25V 4.7 µF
C3749	4822 124 21513	E.CAP 6.3V 47 µF
C3749	4822 124 21513	E.CAP 6.3V 47 µF
C3756	4822 122 33912	CHIP 50V 39P
C3762	4822 122 33906	CHIP 50V 18P
C3801	4822 122 33747	CHIP 50V 0.01 µF
C3802	4822 124 41003	47UF 20% 6,3V
C3804	4822 124 21652	E.CAP 6.3V 33 µF
C3805	4822 122 33917	CHIP 50V 15P
C3806	4822 122 33747	CHIP 50V 0.01 µF
C3807	4822 124 41003	47UF 20% 6,3V
C3808	4822 122 32652	CHIP 50V 82P
C3809	4822 122 33905	CHIP 50V 1000P
C3810	4822 124 21555	E.CAP 10V 220 µF
C3811	4822 122 32247	C.CAP 50V 0.01 µF
C3812	4822 122 33907	CHIP 50V 22P
C3813	4822 122 33747	CHIP 50V 0.01 µF
C3816	4822 122 33747	CHIP 50V 0.01 µF
C3901	4822 122 32643	CHIP 50V 0.047 µF
C3902	4822 122 32642	CHIP 50V 4700P
C3904	4822 122 33747	CHIP 50V 0.01 µF
C3905	4822 122 33747	CHIP 50V 0.01 µF
C3906	4822 122 33747	CHIP 50V 0.01 µF
C3907	4822 122 33747	CHIP 50V 0.01 µF
C3908	4822 122 33747	CHIP 50V 0.01 µF
C3909	4822 122 33747	CHIP 50V 0.01 µF
C3910	4822 122 33747	CHIP 50V 0.01 µF
C3911	4822 124 41003	47UF 20% 6,3V
C3912	4822 122 33747	CHIP 50V 0.01 µF
C3913	4822 122 33747	CHIP 50V 0.01 µF
C3914	4822 122 33747	CHIP 50V 0.01 µF
C3915	4822 122 33747	CHIP 50V 0.01 µF
C3916	4822 122 33747	CHIP 50V 0.01 µF
C3917	4822 122 33747	CHIP 50V 0.01 µF
C3918	4822 122 33747	CHIP 50V 0.01 µF
C3919	4822 122 33747	CHIP 50V 0.01 µF
C3921	4822 122 33747	CHIP 50V 0.01 µF
C3922	4822 122 33747	CHIP 50V 0.01 µF
C3923	4822 122 33747	CHIP 50V 0.01 µF
C3924	4822 122 33747	CHIP 50V 0.01 µF
C3925	4822 122 33747	CHIP 50V 0.01 µF
C3926	4822 122 33747	CHIP 50V 0.01 µF
C3927	4822 122 33747	CHIP 50V 0.01 µF
C3929	4822 122 33747	CHIP 50V 0.01 µF
C3930	4822 122 33747	CHIP 50V 0.01 µF
C3931	4822 122 33747	CHIP 50V 0.01 µF
C3932	4822 122 33747	CHIP 50V 0.01 µF
C3933	4822 122 33916	CHIP 50V 120P
C3934	4822 122 33747	CHIP 50V 0.01 µF
C8301	4822 124 22821	E.CAP 6.3V 100 µF
C8302	4822 122 33747	CHIP 50V 0.01 µF
C8303	4822 122 33747	CHIP 50V 0.01 µF
C8304	4822 122 33747	CHIP 50V 0.01 µF
C8305	4822 122 33747	CHIP 50V 0.01 µF
C8306	4822 124 22821	E.CAP 6.3V 100 µF
C8307	4822 122 33747	CHIP 50V 0.01 µF
C8308	4822 124 40839	E.CAP 50V 1 µF
C8309	4822 124 21513	E.CAP 6.3V 47 µF
C8310	4822 122 33747	CHIP 50V 0.01 µF
C8311	4822 122 33747	CHIP 50V 0.01 µF
C8312	4822 122 33747	CHIP 50V 0.01 µF
C8313	4822 125 50405	TRIMM 90P
C8315	4822 122 33747	CHIP 50V 0.01 µF
C8316	4822 122 33747	CHIP 50V 0.01 µF
C8317	4822 122 33747	CHIP 50V 0.01 µF
C8318	4822 122 33747	CHIP 50V 0.01 µF
C8319	4822 122 33747	CHIP 50V 0.01 µF
C8320	4822 122 33747	CHIP 50V 0.01 µF
C8321	4822 124 40839	E.CAP 50V 1 µF
C8322	4822 124 21513	E.CAP 6.3V 47 µF
C8323	4822 122 33915	C.CAP 50V 0.01 µF
C8324	4822 122 33919	CHIP 50V 3P
C8701	4822 122 33747	CHIP 50V 0.01 µF
C8702	4822 122 33747	CHIP 50V 0.01 µF
C8703	4822 122 33747	CHIP 50V 0.01 µF
C8704	4822 122 33747	CHIP 50V 0.01 µF

D3701	4822 130 32362	MA165
D3703	4822 130 32362	MA165
D3801	4822 130 32362	MA165
D3802	4822 130 32362	MA165
D3803	4822 130 32362	MA165
D3901	4822 130 32865	MA151A
D8301	4822 130 32362	MA165

U---

DL3701	4822 320 40203	DELAY
FL3901	4822 218 30488	FILTER
FL3902	4822 218 30491	FILTER
FL3903	4822 218 30487	FILTER
FL3904	4822 218 30489	FILTER
FL3905	4822 218 30486	FILTER
FL3907	4822 218 30489	FILTER
FL8301	4822 218 30484	FILTER

IC3701	4822 209 60508	AN3294K
IC3702	4822 209 60516	M52055P
IC3801	4822 209 60513	MN1550VNT
IC3802	4822 209 60492	MN1280R
IC3803	4822 209 60517	UPD74HC00G
IC3804	4822 209 60512	LM393PS
IC3901	4822 209 60514	MN3106
IC3902	4822 209 60515	MN3802A
IC8301	4822 209 60516	M52055P
IC8302	4822 209 60509	AN6367K
IC8303	4822 209 60511	BU3781F
L3701	4822 218 30485	FILTER
L3701	4822 157 51975	
L3702	4822 157 51975	
L3703	4822 157 51975	
L3704	4822 157 52164	

L3705	4822 157 51986
L3706	4822 157 51975
L3707	4822 157 53996
L3708	4822 157 51975
L3709	4822 157 51986
L3710	4822 157 51975
L3711	4822 157 52164
L3712	4822 157 51995
L3715	4822 157 52084
L3716	4822 157 51986
L3801	4822 157 51975
L3803	4822 157 53998
L3804	4822 157 53997
L3901	4822 157 51975
L8301	4822 157 51975
L8302	4822 157 51975

Q3701	4822 130 61593	2SC2295
Q3702	4822 130 42669	2SD601
Q3704	4822 130 42659	2SA1022
Q3705	4822 130 61593	2SC2295
Q3706	4822 130 42661	2SB709
Q3710	4822 130 42669	2SD601
Q3711	4822 130 42669	2SD601
Q3712	4822 130 42661	2SB709
Q3713	4822 130 61593	2SC2295
Q3715	4822 130 42661	2SB709
Q3716	4822 130 61593	2SC2295
Q3719	4822 130 42669	2SD601
Q3801	4822 130 42661	2SB709
Q3901	4822 130 42661	2SB709
Q3902	4822 130 61593	2SC2295
Q3903	4822 130 42659	2SA1022
Q3904	4822 130 42669	2SD601
Q3905	4822 130 61593	2SC2295
Q3906	4822 130 61593	2SC2295
Q8301	4822 130 61593	2SC2295
Q8302	4822 130 42661	2SB709
QR3701	4822 111 90815	UN2213
QR3703	4822 111 91319	UN1213
QR3801	4822 111 90812	UN2112
QR3802	4822 111 90811	UN2111
QR8301	4822 111 90814	UN2212

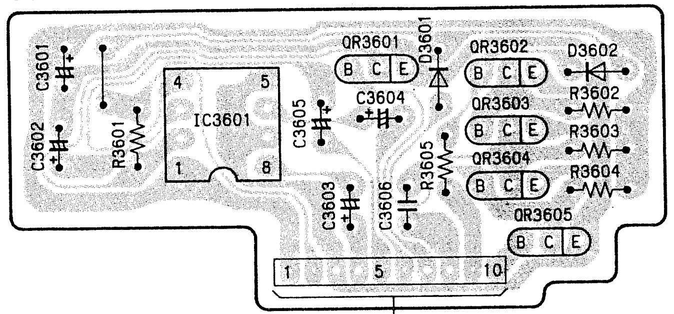
R3701	4822 116 81017	CHIP 33 kΩ
R3702	4822 111 91521	CHIP 180 kΩ
R3703	4822 111 91655	CHIP 8.2 kΩ
R3704	4822 116 90463	CHIP 680
R3706	4822 116 90441	CHIP 100
R3707	4822 111 91523	CHIP 22 kΩ
R3708	4822 111 91523	CHIP 22 kΩ
R3709	4822 111 91516	CHIP 1 kΩ
R3711	4822 116 81117	CHIP 10 kΩ
R3714	4822 116 81117	CHIP 10 kΩ
R3715	4822 116 80882	CHIP 270
R3716	4822 116 80877	CHIP 1.2 kΩ
R3717	4822 111 91523	CHIP 22 kΩ
R3718	4822 116 90342	CHIP 27 kΩ
R3719	4822 116 90342	CHIP 27 kΩ
R3720	4822 111 91498	CHIP 15 kΩ
R3724	4822 116 81117	CHIP 10 kΩ
R3725	4822 111 91523	CHIP 22 kΩ
R3726	4822 116 90446	CHIP 470
R3727	4822 116 80882	CHIP 270
R3728	4822 116 81117	CHIP 10 kΩ
R3729	4822 111 91655	CHIP 8.2 kΩ
R3730	4822 111 91533	CHIP 560
R3731	4822 111 91533	CHIP 560
R3734	4822 111 91526	CHIP 3.3 kΩ
R3738	4822 116 80877	CHIP 1.2 kΩ
R3739	4822 116 81024	CHIP 1.1 kΩ
R3740	4822 111 91516	CHIP 1 kΩ
R3741	4822 111 91516	CHIP 1 kΩ
R3742	4822 116 81382	CHIP 12 kΩ
R3743	4822 116 81382	CHIP 12 kΩ
R3744	4822 111 91516	CHIP 1 kΩ

R3745	4822 116 90446	CHIP 470
R3747	4822 111 91522	CHIP 2.2 kΩ
R3750	4822 111 91526	CHIP 3.3 kΩ
R3753	4822 111 91533	CHIP 560
R3754	4822 111 91533	CHIP 560
R3755	4822 111 91535	CHIP 5.6 kΩ
R3756	4822 111 91535	CHIP 5.6 kΩ
R3757	4822 111 91516	CHIP 1 kΩ
R3763	4822 111 91527	CHIP 3.9 kΩ
R3768	4822 116 90458	CHIP 1.5 kΩ
R3769	4822 111 91516	CHIP 1 kΩ
R3770	4822 116 81117	CHIP 10 kΩ
R3801	4822 116 81378	C.RES 1/2W 47
R3802	4822 111 91501	CHIP 330
R3803	4822 116 81117	CHIP 10 kΩ
R3804	4822 111 91522	CHIP 2.2 kΩ
R3805	4822 111 91516	CHIP 1 kΩ
R3806	4822 111 91516	CHIP 1 kΩ
R3807	4822 111 91516	CHIP 1 kΩ
R3808	4822 116 52206	C.RES 120
R3809	4822 116 90467	CHIP 22Ω
R3811	4822 111 91532	CHIP 4.7 kΩ
R3812	4822 111 91532	CHIP 4.7 kΩ
R3813	4822 116 90445	CHIP 39 kΩ
R3814	4822 111 91521	CHIP 180 kΩ
R3815	4822 116 80881	CHIP 220 kΩ
R3816	4822 116 80881	CHIP 220 kΩ
R3817	4822 116 81403	CHIP 270 kΩ
R3818	4822 116 90442	CHIP 120 kΩ
R3819	4822 116 90442	CHIP 120 kΩ
R3821	4822 111 91526	CHIP 3.3 kΩ
R3822	4822 116 81382	CHIP 12 kΩ
R3823	4822 116 52219	C.RES 330
R3901	4822 111 91516	CHIP 1 kΩ
R3902	4822 111 91532	CHIP 4.7 kΩ
R3903	4822 111 91516	CHIP 1 kΩ
R3904	4822 111 91516	CHIP 1 kΩ
R3905	4822 116 90446	CHIP 470
R3907	4822 116 81117	CHIP 10 kΩ
R3908	4822 116 81117	CHIP 10 kΩ
R3909	4822 116 81117	CHIP 10 kΩ
R3910	4822 116 81117	CHIP 10 kΩ
R3911	4822 111 91516	CHIP 1 kΩ
R3912	4822 111 91516	CHIP 1 kΩ
R3913	4822 116 90458	CHIP 1.5 kΩ
R3914	4822 116 81382	CHIP 12 kΩ
R3915	4822 111 91527	CHIP 3.9 kΩ
R3916	4822 111 91522	CHIP 2.2 kΩ
R3917	4822 111 91522	CHIP 2.2 kΩ
R3918	4822 116 81034	CHIP 820
R3919	4822 111 91516	CHIP 1 kΩ
R3920	4822 116 90463	CHIP 680
R3921	4822 111 91516	CHIP 1 kΩ
R3922	4822 116 90463	CHIP 680
R3924	4822 111 91522	CHIP 2.2 kΩ

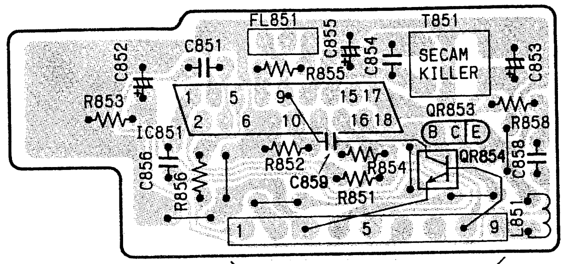
R3925	4822 111 91516	CHIP 1 kΩ
R3926	4822 111 91516	CHIP 1 kΩ
R3927	4822 116 90446	CHIP 470
R3928	4822 111 91533	CHIP 560
R3929	4822 111 91533	CHIP 560
R3930	4822 111 91501	CHIP 330
R3931	4822 116 81117	CHIP 10 kΩ
R3932	4822 111 91655	CHIP 8.2 kΩ
R3933	4822 111 91522	CHIP 2.2 kΩ
R3934	4822 116 52271	C.RES 33 kΩ
R8301	4822 111 91516	CHIP 1 kΩ
R8302	4822 111 91516	CHIP 1 kΩ
R8303	4822 111 91655	CHIP 8.2 kΩ
R8304	4822 111 91655	CHIP 8.2 kΩ
R8305	4822 111 91527	CHIP 3.9 kΩ
R8306	4822 111 91655	CHIP 8.2 kΩ
R8307	4822 111 91516	CHIP 1 kΩ
R8309	4822 111 91532	CHIP 4.7 kΩ
R8310	4822 111 91516	CHIP 1 kΩ
R8315	4822 116 81017	CHIP 33 kΩ
R8316	4822 116 90443	CHIP 180 kΩ
R8317	4822 116 90458	CHIP 1.5 kΩ
R8318	4822 116 80879	CHIP 150
R8319	4822 111 91526	CHIP 3.3 kΩ
R8320	4822 111 91516	CHIP 1 kΩ
R8321	4822 116 90447	CHIP 470 kΩ
R8322	4822 116 90447	CHIP 470 kΩ
R8323	4822 111 91523	CHIP 22 kΩ
R8326	4822 116 90345	CHIP 330 kΩ
R8327	4822 111 91532	CHIP 4.7 kΩ
R8328	4822 116 81117	CHIP 10 kΩ
R8329	4822 116 81117	CHIP 10 kΩ
TH3901	4822 116 40155	THERMISTOR
TH3902	4822 116 40154	THERMISTOR 1 kΩ

VR3701	4822 100 10846	V.RES 20 kΩ
VR3703	4822 101 30599	V.RES 500
VR3707	4822 101 30597	V.RES 200
VR3708	4822 101 30598	V.RES 2 kΩ

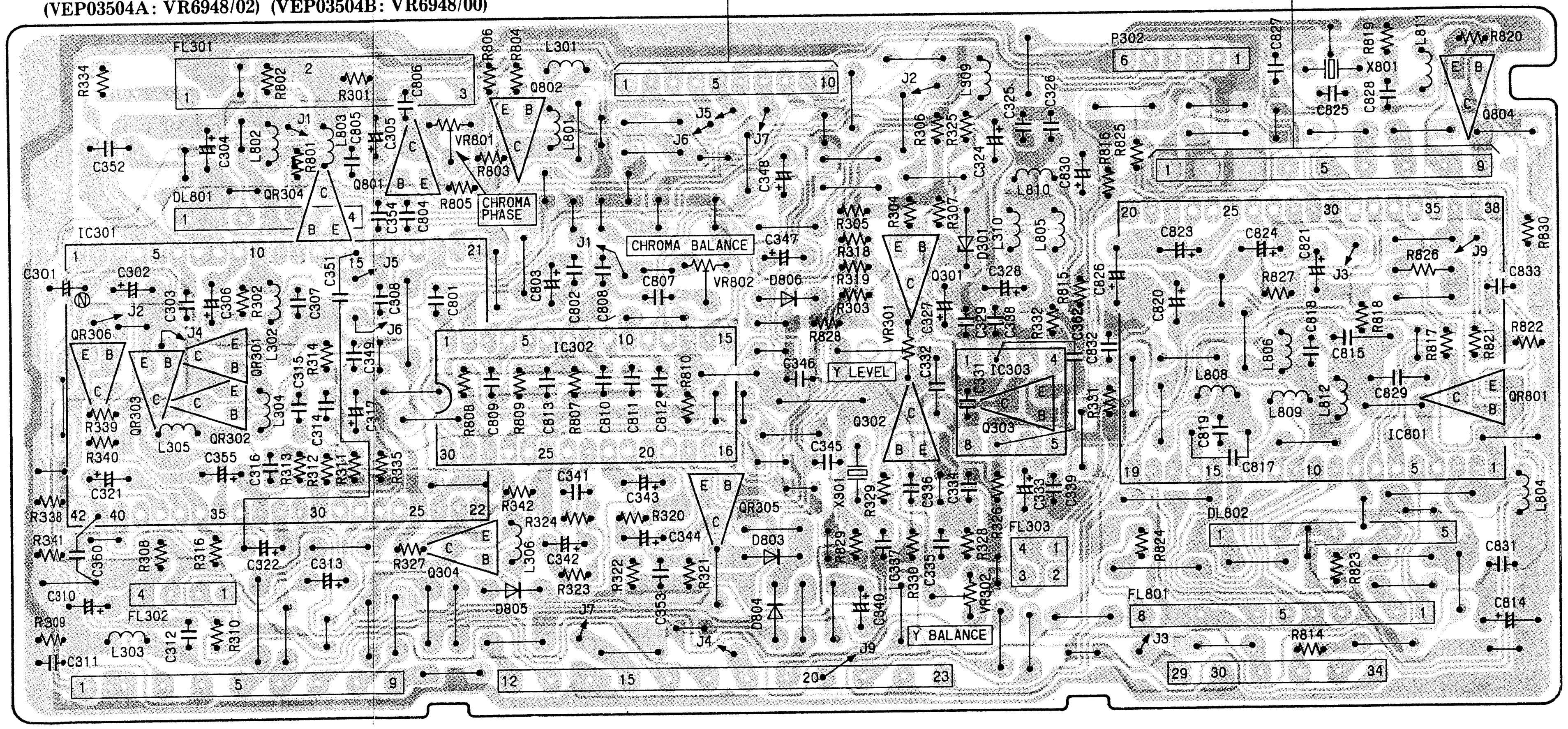
SUB LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03510A)


IC3601
QR3601
QR3602
QR3603
QR3604
QR3605
D3601
D3602
B C E

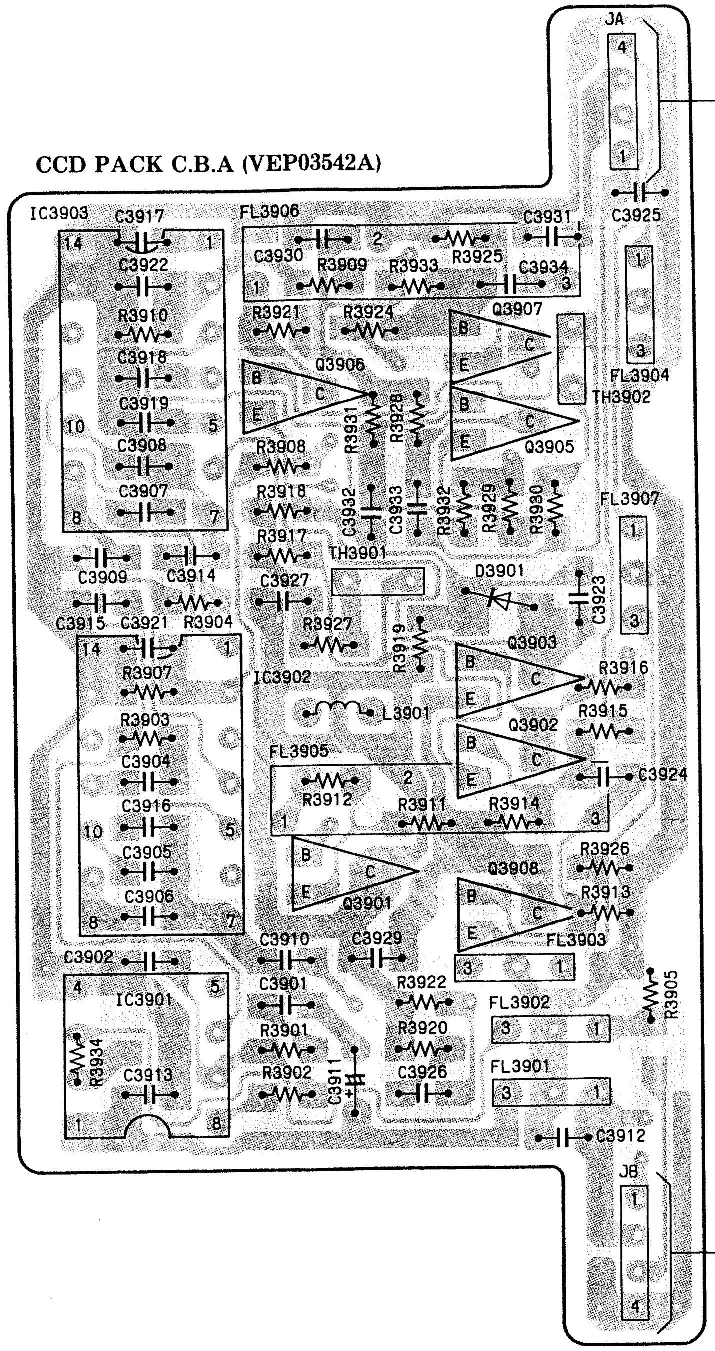
DDR SECAM PACK C.B.A. (VEP03452E)


FL851
T851
SECAM KILLER
IC851
QR853
QR854

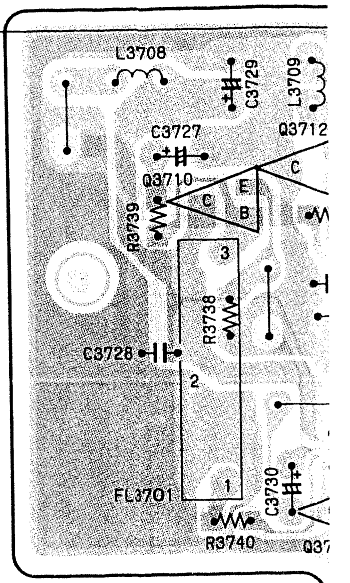
LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03504A: VR6948/02) (VEP03504B: VR6948/00)

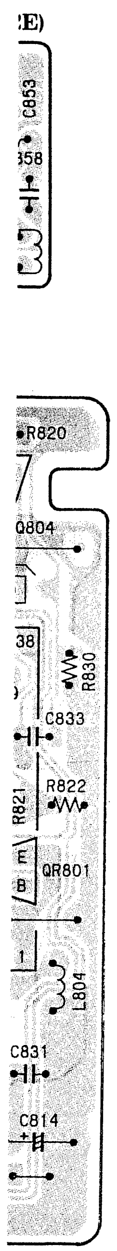

FL301
DL801
IC301
IC302
IC303
IC801
P302
X801
CHROMA PHASE
CHROMA BALANCE
Y LEVEL
Y BALANCE
VR801
VR802
VR301
VR302
FL302
FL303
FL801
DL802

CCD PACK C.B.A (VEP03542A)


JA
JB
IC3903
IC3902
IC3901
FL3906
FL3904
FL3905
FL3907
FL3903
FL3902
FL3901
TH3901
TH3902
D3901

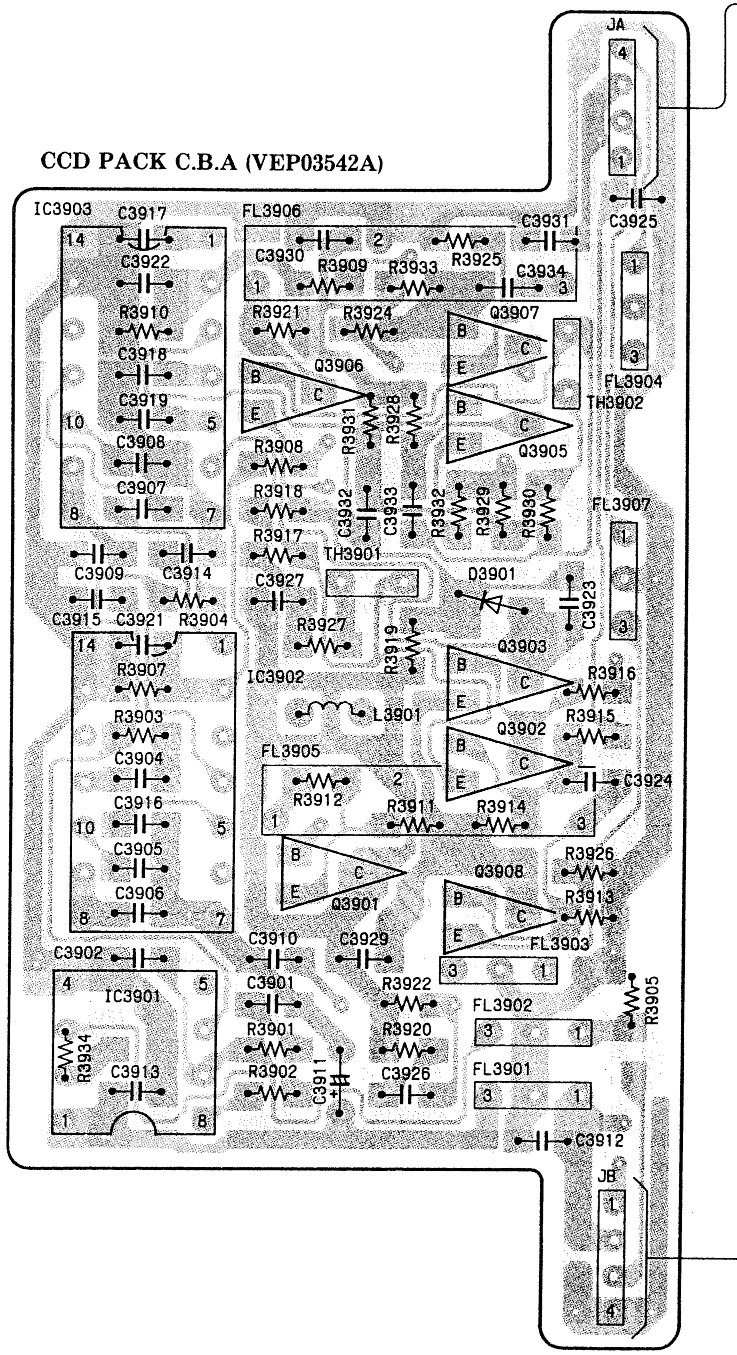
LUMINANCE & CHROM


L3708
L3709
Q3710
Q3712
FL3701



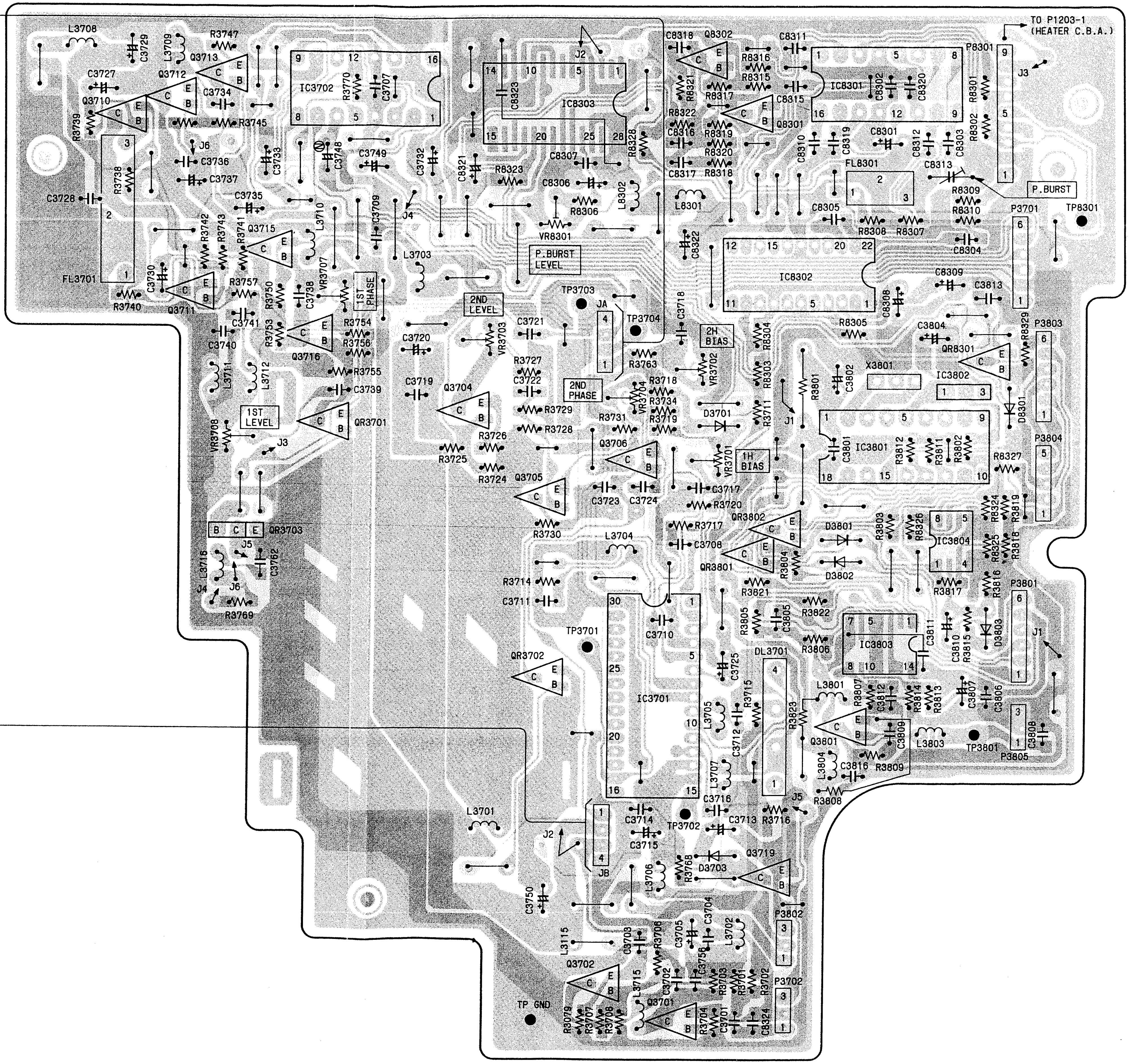
E)
C853
858
R820
Q804
R830
C833
R822
R821
QR801
L804
C831
C814

CCD PACK C.B.A (VEP03542A)



JA
IC3903
C3917
C3922
R3910
C3918
C3919
C3908
C3907
FL3906
C3930
R3909
R3933
R3925
C3931
C3934
C3925
R3921
R3924
Q3907
Q3906
R3931
R3928
Q3905
FL3904
TH3902
R3908
R3918
R3917
C3932
C3933
R3932
R3929
R3930
FL3907
TH3901
C3909
C3914
C3915
C3921
R3904
C3927
D3901
C3923
R3927
R3919
Q3903
IC3902
R3916
R3907
L3901
R3915
R3903
Q3902
C3904
FL3905
C3924
C3916
R3912
R3911
R3914
C3905
C3906
Q3901
Q3908
R3926
R3913
FL3903
C3902
C3910
C3929
IC3901
C3901
R3922
R3905
R3934
R3901
R3920
FL3902
C3913
R3902
C3911
C3926
FL3901
C3912
JB

LUMINANCE & CHROMINANCE SEPARATION C.B.A. (VEP03541B)



TO P1203-1
(HEATER C.B.A.)
L3708
C3729
L3709
R3747
Q3713
Q3712
C3727
C3734
Q3710
R3739
R3745
R3738
FL3701
J6
C3736
C3737
C3728
C3735
R3742
R3743
R3741
Q3715
L3710
C3730
Q3711
R3740
R3757
R3750
C3738
VR3707
1ST PHASE
C3741
C3740
R3753
Q3716
R3754
R3756
R3755
C3739
L3711
L3712
1ST LEVEL
QR3701
VR3708
J3
QR3703
L3716
J5
C3762
J4
R3769
IC3702
R3770
C3707
C3733
C3748
C3749
C3732
C3709
J4
L3703
J2
IC8303
C8323
C8321
R8323
C8307
C8306
R8306
R8328
L8302
VR8301
P.BURST LEVEL
TP3703
2ND LEVEL
C3720
VR3703
C3721
R3727
C3722
C3719
Q3704
R3729
R3728
R3726
R3725
R3724
Q3705
JA
TP3704
C3718
2H BIAS
R3763
VR3702
2ND PHASE
R3718
R3734
R3731
R3719
D3701
Q3706
VR3701
1H BIAS
C3723
C3724
C3717
R3720
R3717
C3708
R3730
L3704
R3714
C3711
TP3701
QR3702
IC3701
C3710
C3725
L3705
C3712
R3715
L3707
DL3701
C3714
C3715
TP3702
C3716
C3713
R3716
J2
JB
L3701
C3750
L3706
R3768
D3703
Q3719
L3115
C3703
R3706
C3705
C3704
L3702
C3756
Q3702
L3715
C3702
R3703
R3701
R3702
Q3701
TP GND
R3079
R3707
R3708
R3704
C3701
C3824
P3802
P3702
C8318
Q8302
R8316
R8315
R8321
R8317
R8322
C8316
R8319
R8320
Q8301
C8317
R8318
C8311
IC8301
C8302
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C8315
C8310
C8319
C8301
C8312
C8303
P8301
R8301
R8302
J3
FL8301
C8313
R8309
P.BURST
L8301
C8305
R8308
R8307
R8310
C8322
IC8302
C8304
P3701
TP8301
C8309
C3813
C8308
R8305
C3804
R8329
P3803
QR8301
R8304
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C3802
X3801
IC3802
R3711
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C3801
IC3801
R3812
R3811
R3802
D8301
P3804
R8327
QR3802
D3801
R3803
R8326
IC3804
R8324
R3819
R8325
R3818
QR3801
R3804
D3802
R3821
R3817
R3816
P3801
R3805
C3805
R3822
IC3803
C3811
R3810
R3815
D3803
R3806
J1
L3801
R3807
C3812
R3814
R3813
C3807
C3806
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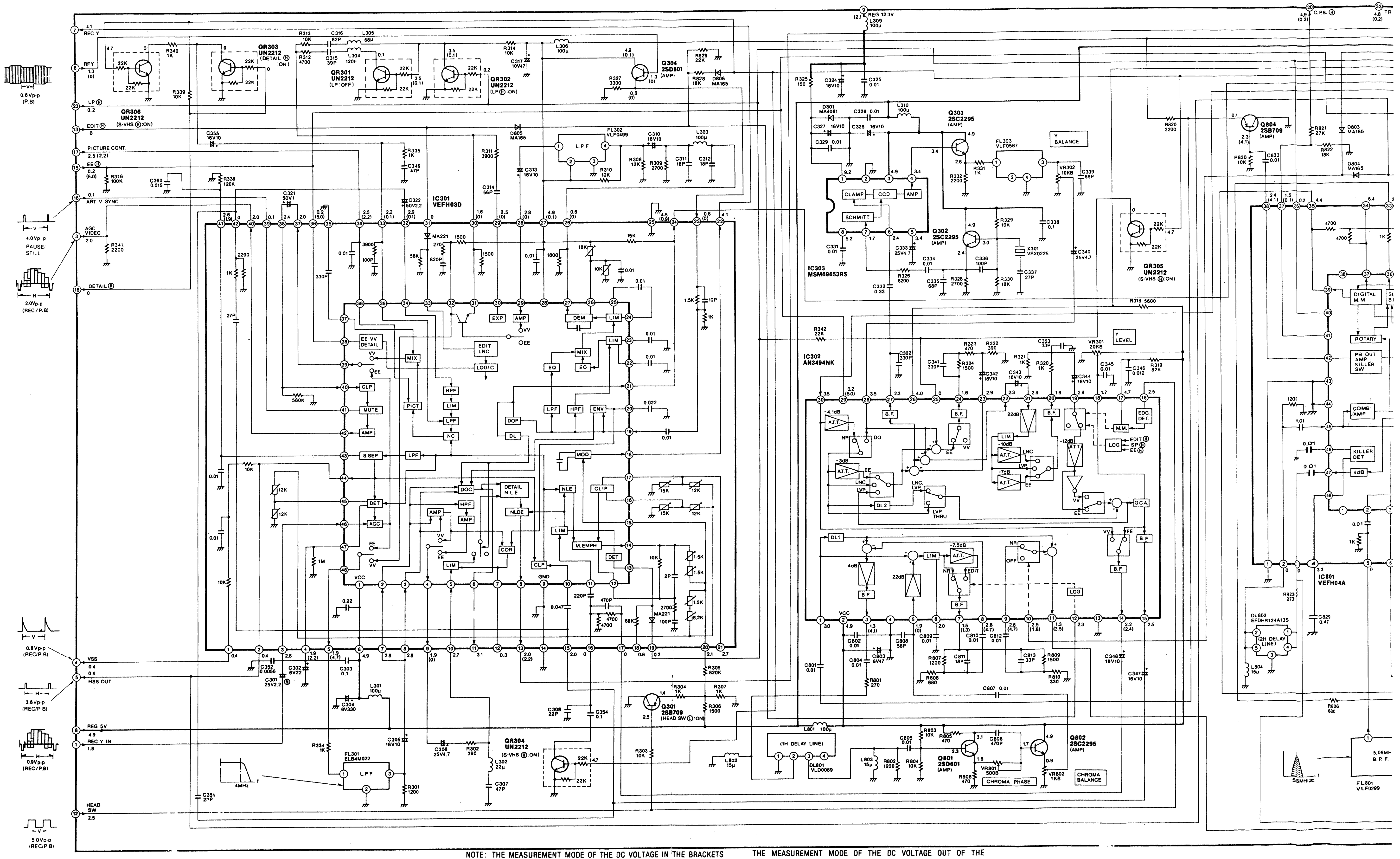
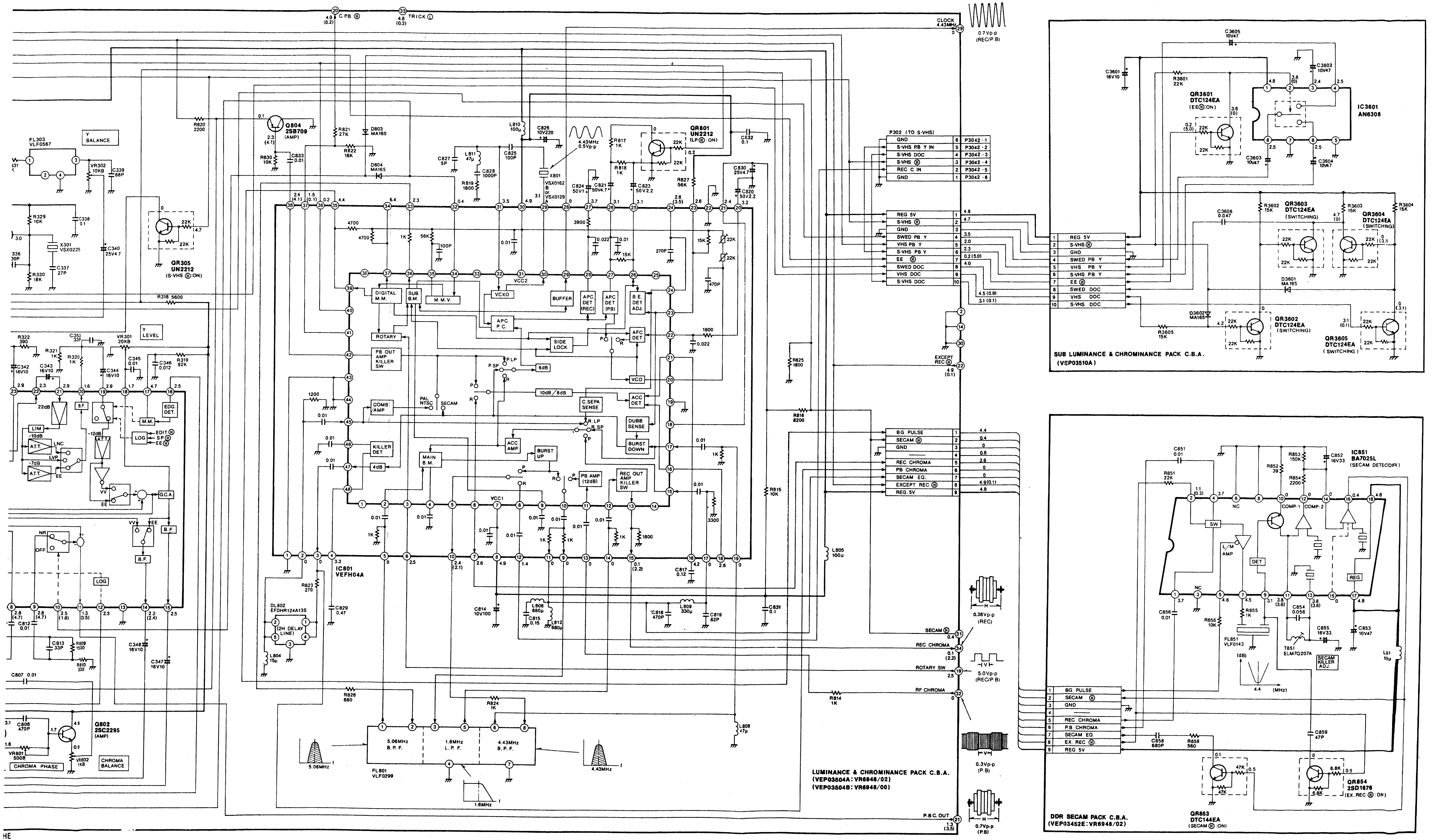
R3809
R3808
J5


0.8Vp-p
(P.B)
4.0Vp-p
PAUSE/
STILL
2.0Vp-p
(REC/P.B)
0.8Vp-p
(REC/P.B)
3.8Vp-p
(REC/P.B)
0.9Vp-p
(REC/P.B)
5.0Vp-p
(REC/P.B)
REC.Y
RFY
LP Ⓗ
EDIT Ⓗ
PICTURE CONT.
EE Ⓡ
ART V SYNC
AGC VIDEO
DETAIL Ⓡ
VSS
HSS OUT
REG 5V
REC Y IN
HEAD SW
QR306
UN2212
(S-VHS Ⓗ:ON)
QR303
UN2212
(DETAIL Ⓗ:ON)
QR301
UN2212
(LP:OFF)
QR302
UN2212
(LP Ⓗ:ON)
Q304
2SD601
(AMP)
IC301
VEFH03D
FL302
VLF0499
L.P.F
D805
MA165
QR304
UN2212
(S-VHS Ⓗ:ON)
FL301
ELB4M022
L.P.F
4MHz
Q301
2SB709
(HEAD SW Ⓛ:ON)
REG 12.3V
Q303
2SC2295
(AMP)
FL303
VLF0567
Y BALANCE
CLAMP
CCD
AMP
SCHMITT
IC303
MSM69853RS
Q302
2SC2295
(AMP)
X301
VSX0225
IC302
AN3494NK
Y LEVEL
QR305
UN2212
(S-VHS Ⓗ:ON)
(1H DELAY LINE)
DL801
VLD0089
Q801
2SD601
(AMP)
CHROMA PHASE
Q802
2SC2295
(AMP)
CHROMA BALANCE
Q804
2SB709
(AMP)
C.P.B. Ⓗ
D803
MA165
D804
MA165
IC801
VEFH04A
DIGITAL M.M.
ROTARY
PB OUT AMP KILLER SW
COMB AMP
KILLER DET
4dB
DL802
EFDHR124A13S
(2H DELAY LINE)
5.06MH B.P.F.
FL801
VLF0299
5.5MHz

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)


C.PB Ⓗ
TRICK Ⓛ
CLOCK 4.43MHz
0.7Vp-p (REC/P.B)
Q804 2SB709 (AMP)
D803 MA165
D804 MA165
QR801 UN2212 (LP Ⓗ : ON)
X801 VSX0162 B or VSX0129 A
4.43MHz 0.5Vp-p
QR305 UN2212 (S-VHS Ⓗ : ON)
FL303 VLF0567
Y BALANCE
Y LEVEL
VR302 10KB
VR301 20KB
X301 VSX0225
IC801 VEFH04A
DIGITAL M.M.
SUB B.M.
M.M.V.
VCXO
VCC2
VCC1
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ.
APC P.C.
SIDE LOCK
AFC DET
ROTARY
PB OUT AMP KILLER SW
VCO
10dB/6dB
6dB
C.SEPA SENSE
ACC DET
COMB AMP
PAL NTSC SECAM
DUBB SENSE
BURST DOWN
KILLER DET
ACC AMP
BURST UP
MAIN B.M.
4dB
PB AMP (12dB)
REC OUT AMP KILLER SW
LIM
ATT.
LNC
LVP
EE
M.M.
LOG
EDIT Ⓗ
SP Ⓗ
EE Ⓗ
EDG. DET.
B.F.
G.C.A.
NR
OFF
VV
DL802 EFDHR124A13S (2H DELAY LINE)
Q802 2SC2295 (AMP)
VR801 500B
VR802 1KB
CHROMA PHASE
CHROMA BALANCE
FL801 VLF0299
5.06MHz B.P.F.
1.6MHz L.P.F.
4.43MHz B.P.F.
5.06MHz
4.43MHz
1.6MHz
P302 (TO S-VHS)
GND
S-VHS PB Y IN
S-VHS DOC
S-VHS Ⓗ
REC C IN
GND
P3042-1
P3042-2
P3042-3
P3042-4
P3042-5
P3042-6
REG 5V
S-VHS Ⓗ
GND
SWED PB Y
VHS PB Y
S-VHS PB Y
EE Ⓗ
SWED DOC
VHS DOC
S-VHS DOC
EXCEPT REC Ⓗ
BG PULSE
SECAM Ⓗ
REC CHROMA
PB CHROMA
SECAM EQ.
EXCEPT REC Ⓗ
REG. 5V
SECAM Ⓗ
REC CHROMA
ROTARY SW
RF CHROMA
P.B.C. OUT
0.38Vp-p (REC)
5.0Vp-p (REC/P.B)
0.3Vp-p (P.B)
0.7Vp-p (P.B)
LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03504A: VR6948/02)
(VEP03504B: VR6948/00)
IC3601 AN6308
QR3601 DTC124EA (EE Ⓗ : ON)
QR3603 DTC124EA (SWITCHING)
QR3604 DTC124EA (SWITCHING)
QR3602 DTC124EA (SWITCHING)
QR3605 DTC124EA (SWITCHING)
D3601 MA165
D3602 MA165
SUB LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03510A)
IC851 BA7025L (SECAM DETECTOR)
COMP-1
COMP-2
SW
L/M AMP
DET
REG
FL851 VLF0143
T851 ELM7Q207A
SECAM KILLER ADJ.
(dB)
4.4 (MHz)
BG PULSE
SECAM Ⓗ
GND
REC CHROMA
P.B CHROMA
SECAM EQ
EX. REC Ⓗ
REG 5V
QR853 DTC144EA (SECAM Ⓗ : ON)
QR854 2SD1876 (EX. REC Ⓗ : ON)
DDR SECAM PACK C.B.A.
(VEP03452E: VR6948/02)

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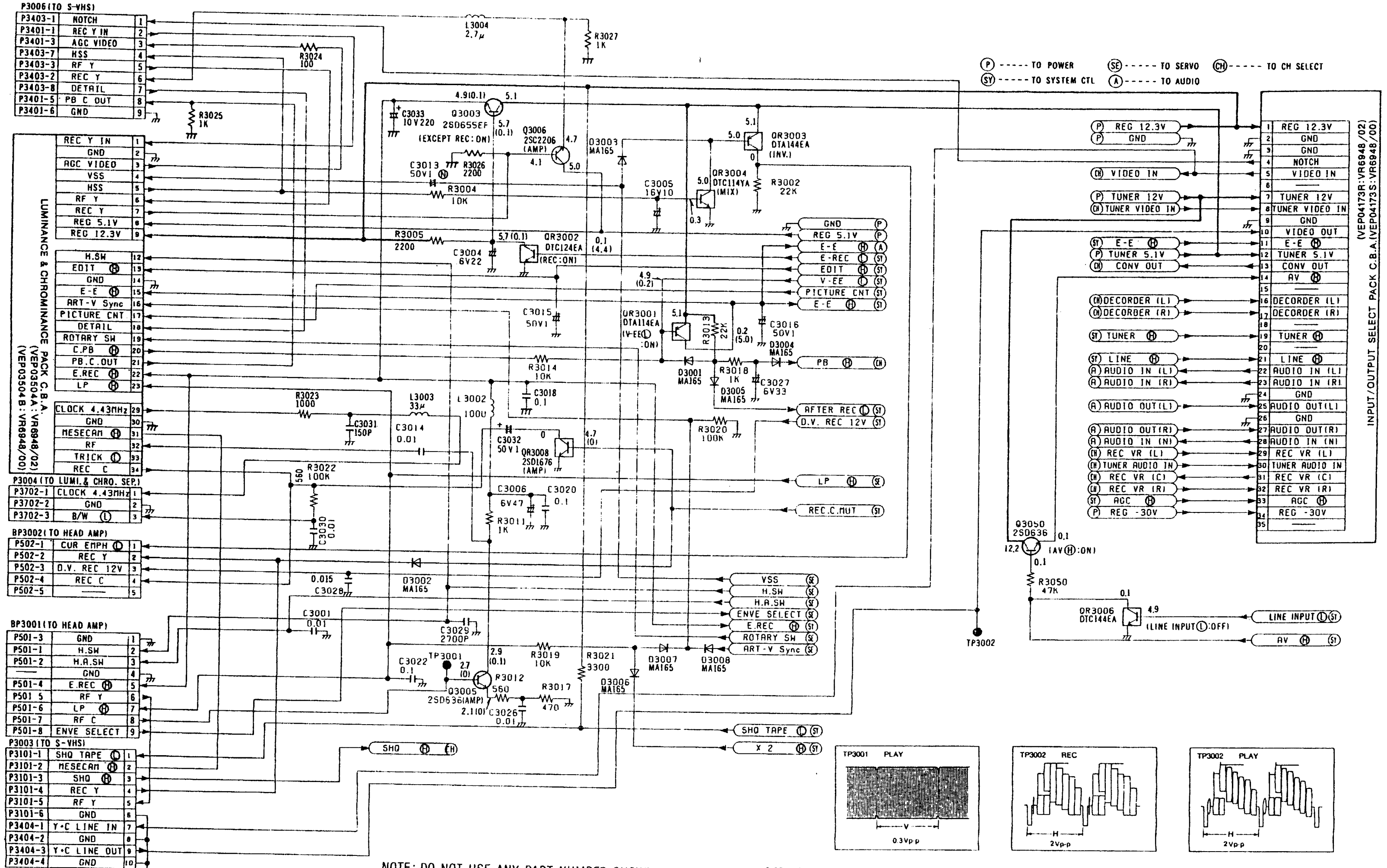
P ----- TO POWER
SE ----- TO SERVO
CH ----- TO CH SELECT
ST ----- TO SYSTEM CTL
A ----- TO AUDIO
P3006 (TO S-VHS)
P3403-1 NOTCH
P3401-1 REC Y IN
P3401-3 AGC VIDEO
P3403-7 HSS
P3403-3 RF Y
P3403-2 REC Y
P3403-8 DETAIL
P3401-5 PB C OUT
P3401-6 GND
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03504A : VR6948/02) (VEP03504B : VR6948/00)
REC Y IN
GND
AGC VIDEO
VSS
HSS
RF Y
REC Y
REG 5.1V
REG 12.3V
H.SW
EDIT
E-E
ART-V Sync
PICTURE CNT
DETAIL
ROTARY SW
C.PB
PB.C.OUT
E.REC
LP
CLOCK 4.43MHz
MESECAM
RF
TRICK
REC C
P3004 (TO LUMI.& CHRO. SEP.)
P3702-1 CLOCK 4.43MHz
P3702-2 GND
P3702-3 B/W
BP3002 (TO HEAD AMP)
P502-1 CUR EMPH
P502-2 REC Y
P502-3 D.V. REC 12V
P502-4 REC C
P502-5
BP3001 (TO HEAD AMP)
P501-3 GND
P501-1 H.SW
P501-2 H.A.SW
P501-4 E.REC
P501-5 RF Y
P501-6 LP
P501-7 RF C
P501-8 ENVE SELECT
P3003 (TO S-VHS)
P3101-1 SHQ TAPE
P3101-2 MESECAM
P3101-3 SHQ
P3101-4 REC Y
P3101-5 RF Y
P3101-6 GND
P3404-1 Y·C LINE IN
P3404-2 GND
P3404-3 Y·C LINE OUT
P3404-4 GND
L3004 2.7μ
R3027 1K
R3024 100
R3025 1K
C3033 10V220
Q3003 2SD655EF (EXCEPT REC:ON)
Q3006 2SC2206 (AMP)
D3003 MA165
QR3003 DTA144EA (INV.)
QR3004 DTC114YA (MIX)
R3002 22K
C3005 16V10
C3013 50V1
R3026 2200
R3004 10K
R3005 2200
C3004 6V22
QR3002 DTC124EA (REC:ON)
C3015 50V1
QR3001 DTA114EA (V-EE:ON)
R3013 22K
C3016 50V1
D3004 MA165
D3001 MA165
R3018 1K
C3027 6V33
D3005 MA165
R3014 10K
C3018 0.1
R3023 1000
C3031 150P
L3003 33μ
L3002 100U
C3014 0.01
C3032 50V1
QR3008 2SD1676 (AMP)
R3020 100K
R3022 100K
C3030 0.01
C3006 6V47
C3020 0.1
R3011 1K
D3002 MA165
C3028 0.015
C3001 0.01
C3029 2700P
C3022 0.1
TP3001
Q3005 2SD636 (AMP)
R3012 560
R3019 10K
R3021 3300
R3017 470
C3026 0.01
D3007 MA165
D3008 MA165
D3006 MA165
Q3050 2SD636
(AV:ON)
R3050 47K
QR3006 DTC144EA
(LINE INPUT:OFF)
TP3002
GND
REG 5.1V
E-E
E-REC
EDIT
V-EE
PICTURE CNT
PB
AFTER REC
D.V. REC 12V
LP
REC.C.MUT
VSS
H.SW
H.A.SW
ENVE SELECT
E.REC
ROTARY SW
ART-V Sync
SHQ TAPE
X 2
SHQ
LINE INPUT
AV
REG 12.3V
VIDEO IN
TUNER 12V
TUNER VIDEO IN
TUNER 5.1V
CONV OUT
DECORDER (L)
DECORDER (R)
TUNER
LINE
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (N)
REC VR (L)
TUNER AUDIO IN
REC VR (C)
REC VR (R)
AGC
REG -30V
INPUT/OUTPUT SELECT PACK C.B.A. (VEP04173S : VR6948/00) (VEP04173R : VR6948/02)
REG 12.3V
GND
GND
NOTCH
VIDEO IN
TUNER 12V
TUNER VIDEO IN
GND
VIDEO OUT
E-E
TUNER 5.1V
CONV OUT
AV
DECORDER (L)
DECORDER (R)
TUNER
LINE
AUDIO IN (L)
AUDIO IN (R)
GND
AUDIO OUT (L)
GND
AUDIO OUT (R)
AUDIO IN (N)
REC VR (L)
TUNER AUDIO IN
REC VR (C)
REC VR (R)
AGC
REG -30V
TP3001 PLAY
0.3Vp-p
TP3002 REC
2Vp-p
TP3002 PLAY
2Vp-p

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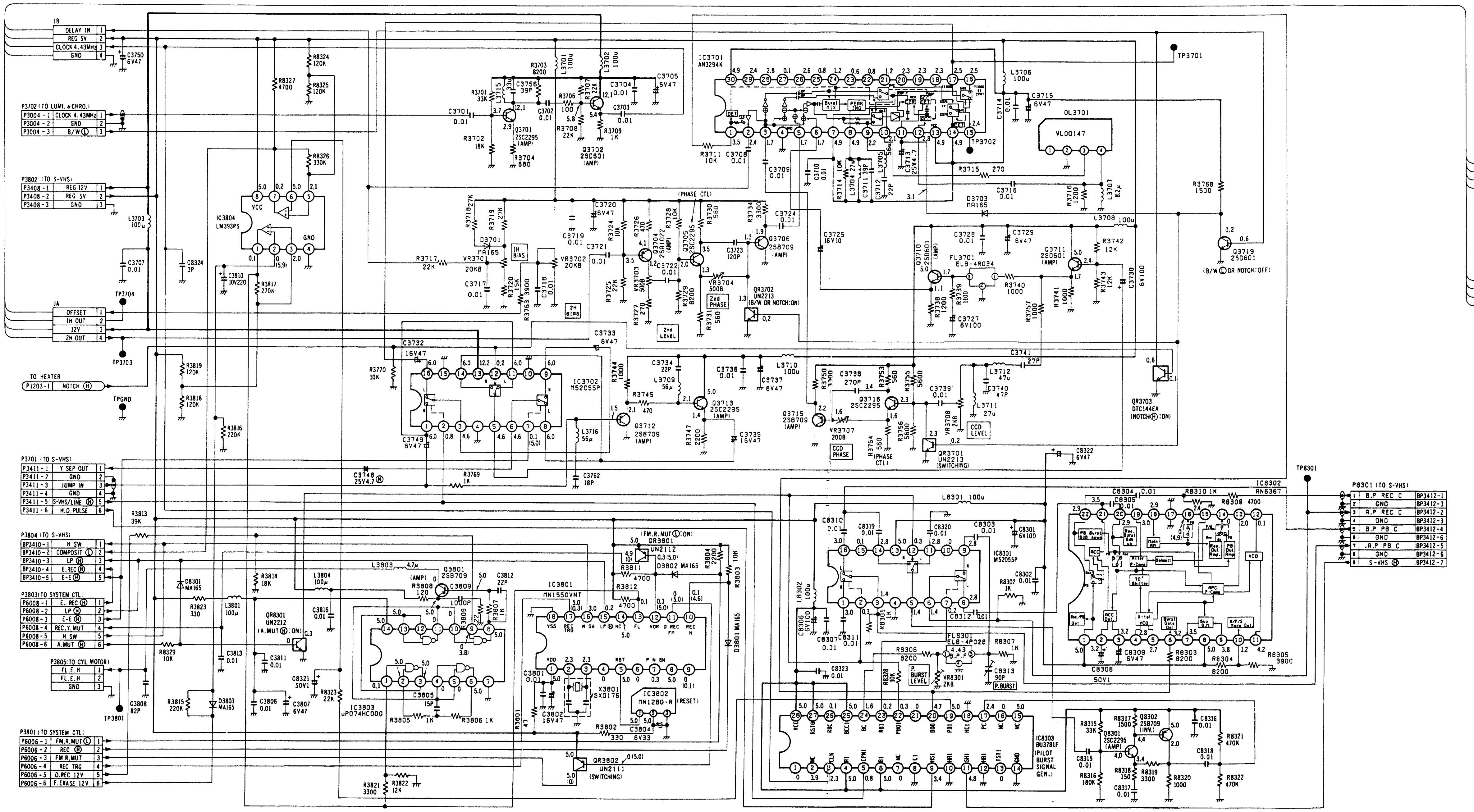
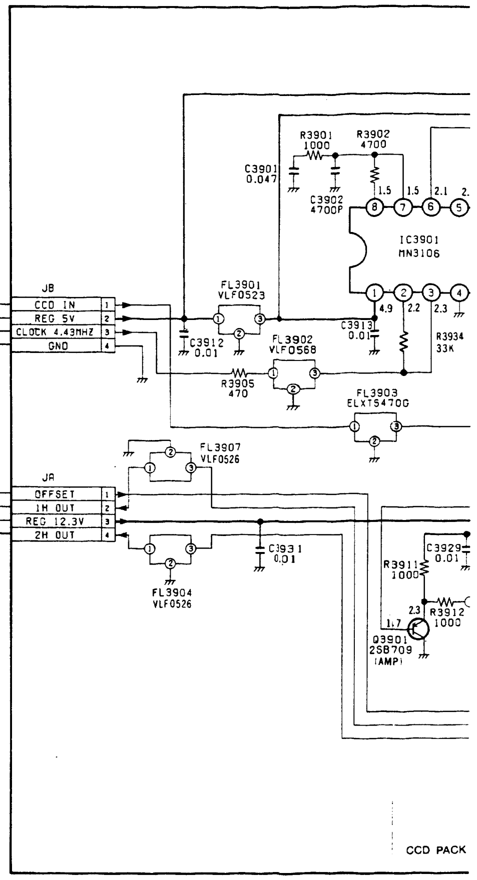
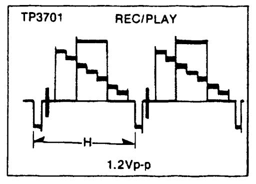
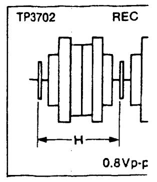
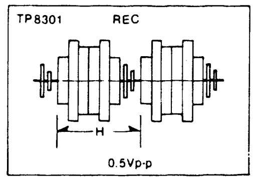
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (　) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

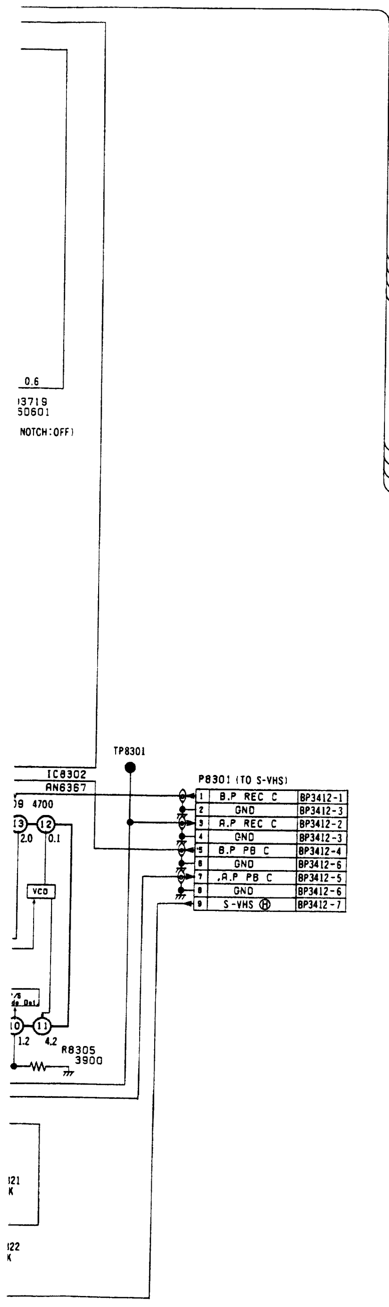

JB
DELAY IN
REG 5V
CLOCK 4.43MHz
GND
P3702 (TO LUMI. & CHRO.)
P3004 - 1 CLOCK 4.43MHz
P3004 - 2 GND
P3004 - 3 B/W
P3802 (TO S-VHS)
P3408 - 1 REG 12V
P3408 - 2 REG 5V
P3408 - 3 GND
IC3804 LM393PS
TP3704
JA
OFFSET
1H OUT
12V
2H OUT
TP3703
TO HEATER
P1203-1 NOTCH (H)
TPGND
P3701 (TO S-VHS)
P3411 - 1 Y SEP OUT
P3411 - 2 GND
P3411 - 3 JUMP IN
P3411 - 4 GND
P3411 - 5 S-VHS/LINE (H)
P3411 - 6 H.D. PULSE
P3804 (TO S-VHS)
BP3410 - 1 H SW
BP3410 - 2 COMPOSIT
BP3410 - 3 LP
BP3410 - 4 E.REC
BP3410 - 5 E-E
P3803 (TO SYSTEM CTL)
P6008 - 1 E. REC (H)
P6008 - 2 LP
P6008 - 3 E-E
P6008 - 4 REC.Y.MUT
P6008 - 5 H SW
P6008 - 6 A.MUT
P3805 (TO CYL MOTOR)
FL.E.H
FL.E.H
GND
TP3801
P3801 (TO SYSTEM CTL)
P6006 - 1 FM.R.MUT
P6006 - 2 REC
P6006 - 3 FM.R.MUT
P6006 - 4 REC TRG
P6006 - 5 D.REC 12V
P6006 - 6 F.ERASE 12V
Q3701 2SC2295 (AMP)
Q3702 2SD601 (AMP)
IC3701 AN3294K
TP3701
TP3702
DL3701 VL00147
Q3703 MA165
Q3719 2SD601 (B/W (L) OR NOTCH:OFF)
Q3704 2SA1022 (AMP)
Q3705 2SC2295
Q3706 2SB709 (AMP)
QR3702 UN2213 (B/W OR NOTCH:ON)
1H BIAS
2H BIAS
2nd PHASE
2nd LEVEL
Q3710 2SD601 (AMP)
FL3701 ELB-4R034
Q3711 2SD601 (AMP)
IC3702 M52055P
Q3712 2SB709 (AMP)
Q3713 2SC2295 (AMP)
Q3715 2SB709 (AMP)
Q3716 2SC2295
CCD PHASE
CCD LEVEL
QR3701 UN2213 (SWITCHING)
QR3703 DTC144EA (NOTCH(H):ON)
TP8301
IC8302 AN6367
P8301 (TO S-VHS)
B.P REC C
GND
R.P REC C
GND
B.P PB C
GND
R.P PB C
GND
S-VHS (H)
BP3412-1
BP3412-3
BP3412-2
BP3412-3
BP3412-4
BP3412-6
BP3412-5
BP3412-6
BP3412-7
IC8301 M52055P
FL8301 ELB-4P028
P. BURST LEVEL
P.BURST
IC8303 BU3781F (PILOT BURST SIGNAL GEN.)
Q8301 2SC2295 (AMP)
Q8302 2SB709 (INV.)
D8301 MA165
QR8301 UN2212 (A.MUT (H):ON)
Q3801 2SB709 (AMP)
IC3803 uPD74HC00G
IC3801 MN1550VNT
QR3801 UN2112 (FM.R.MUT (L):ON)
D3802 MA165
D3803 MA165
D3801 MA165
X3801 VSX0176
IC3802 MN1280-R (RESET)
QR3802 UN2111 (SWITCHING)

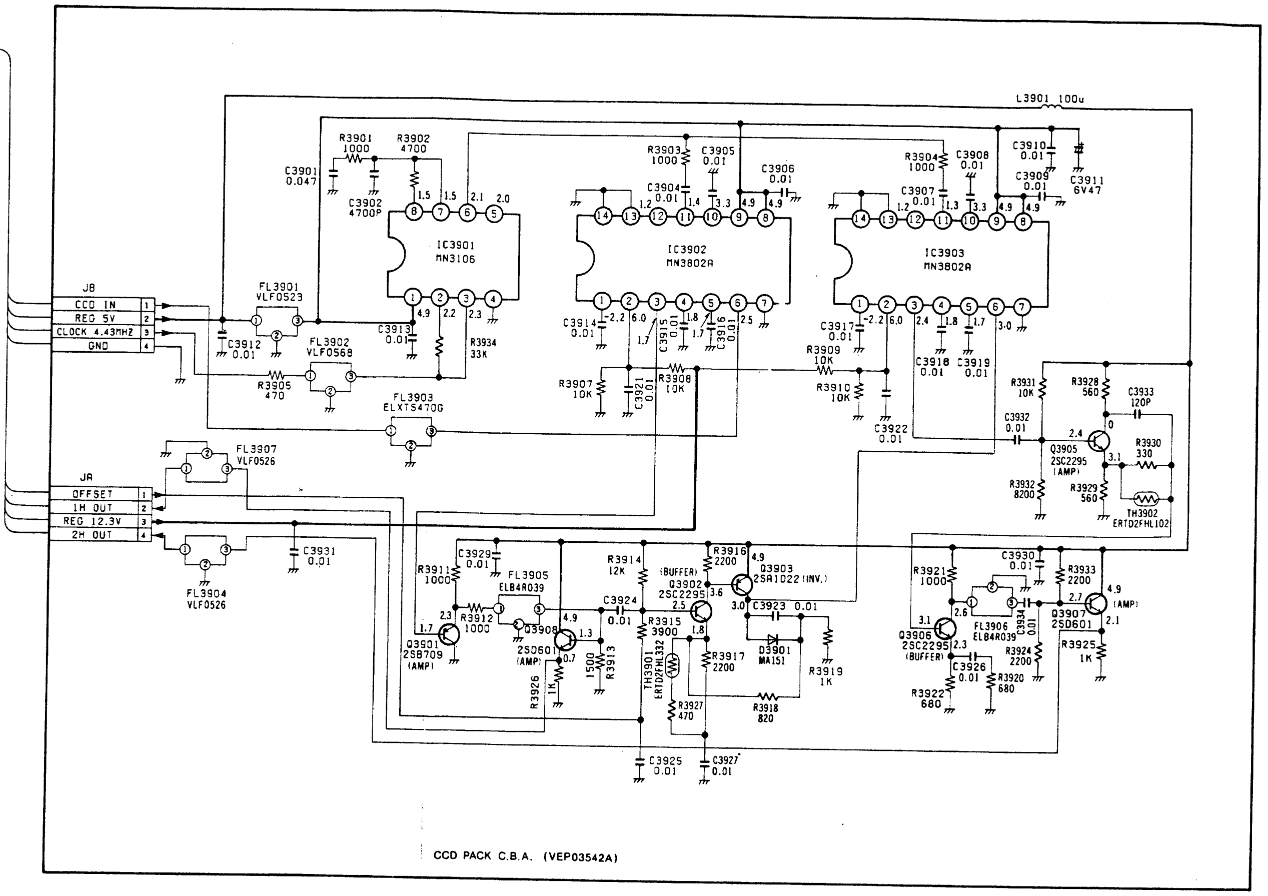

IC3901 MN3106
JB
CCD IN
REG 5V
CLOCK 4.43MHz
GND
FL3901 VLF0523
FL3902 VLF0568
FL3903 ELKT5470G
JA
OFFSET
1H OUT
REG 12.3V
2H OUT
FL3907 VLF0526
FL3904 VLF0526
Q3901 2SB709 (AMP)
CCD PACK

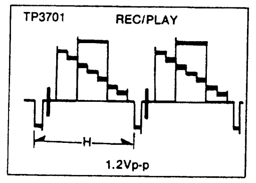

TP3701
REC/PLAY
H
1.2Vp-p

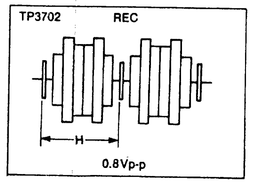

TP3702
REC
H
0.6Vp-p

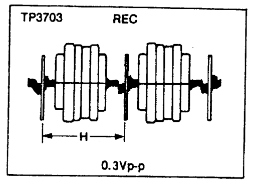

TP8301
REC
H
0.5Vp-p

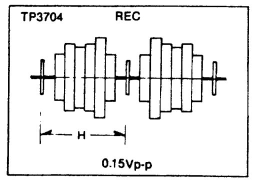

0.6
3719
SD601
NOTCH:OFF)
TP8301
IC8302
AN6367
4700
2.0
0.1
VCO
1.2
4.2
R8305
3900
P8301 (TO S-VHS)
1 B.P REC C BP3412-1
2 GND BP3412-3
3 A.P REC C BP3412-2
4 GND BP3412-3
5 B.P PB C BP3412-4
6 GND BP3412-6
7 A.P PB C BP3412-5
8 GND BP3412-6
9 S-VHS Ⓗ BP3412-7

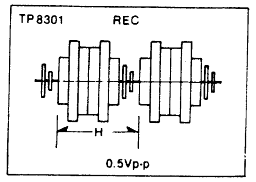

JB
CCD IN
REG 5V
CLOCK 4.43MHZ
GND
JA
OFFSET
1H OUT
REG 12.3V
2H OUT
FL3901 VLF0523
FL3902 VLF0568
FL3903 ELXTS470G
FL3904 VLF0526
FL3905 ELB4R039
FL3906 ELB4R039
FL3907 VLF0526
IC3901 MN3106
IC3902 MN3802A
IC3903 MN3802A
L3901 100u
R3901 1000
R3902 4700
R3903 1000
R3904 1000
R3905 470
R3907 10K
R3908 10K
R3909 10K
R3910 10K
R3911 1000
R3912 1000
R3913 1500
R3914 12K
R3915 3900
R3916 2200
R3917 2200
R3918 820
R3919 1K
R3920 680
R3921 1000
R3922 680
R3924 2200
R3925 1K
R3926 1K
R3927 470
R3928 560
R3929 560
R3930 330
R3931 10K
R3932 8200
R3933 2200
R3934 33K
C3901 0.047
C3902 4700P
C3904 0.01
C3905 0.01
C3906 0.01
C3907 0.01
C3908 0.01
C3909 0.01
C3910 0.01
C3911 6V47
C3912 0.01
C3913 0.01
C3914 0.01
C3915 0.01
C3916 0.01
C3917 0.01
C3918 0.01
C3919 0.01
C3921 0.01
C3922 0.01
C3923 0.01
C3924 0.01
C3925 0.01
C3926 0.01
C3927 0.01
C3929 0.01
C3930 0.01
C3931 0.01
C3932 0.01
C3933 120P
C3934 0.01
Q3901 2SB709 (AMP)
Q3902 2SC2295 (BUFFER)
Q3903 2SA1022 (INV.)
Q3905 2SC2295 (AMP)
Q3906 2SC2295 (BUFFER)
Q3907 2SD601 (AMP)
Q3908 2SD601 (AMP)
D3901 MA151
TH3901 ERTD2FHL332
TH3902 ERTD2FHL102
CCD PACK C.B.A. (VEP03542A)





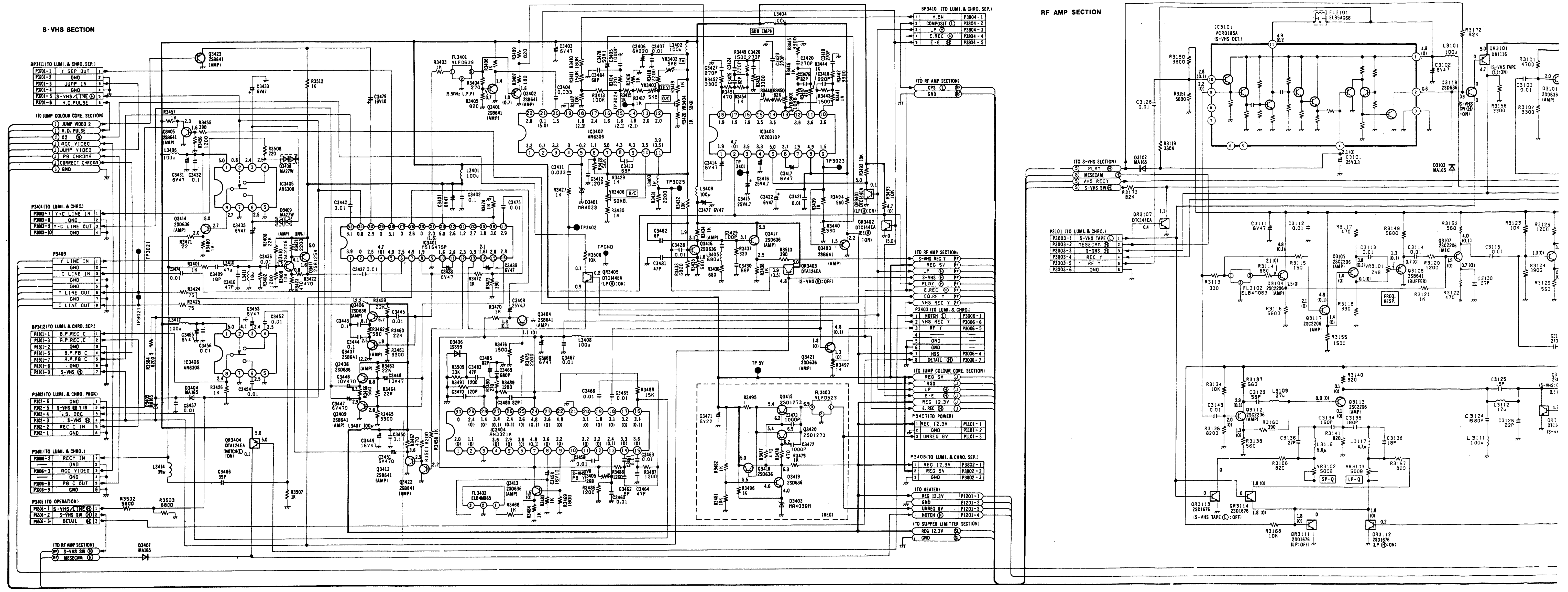


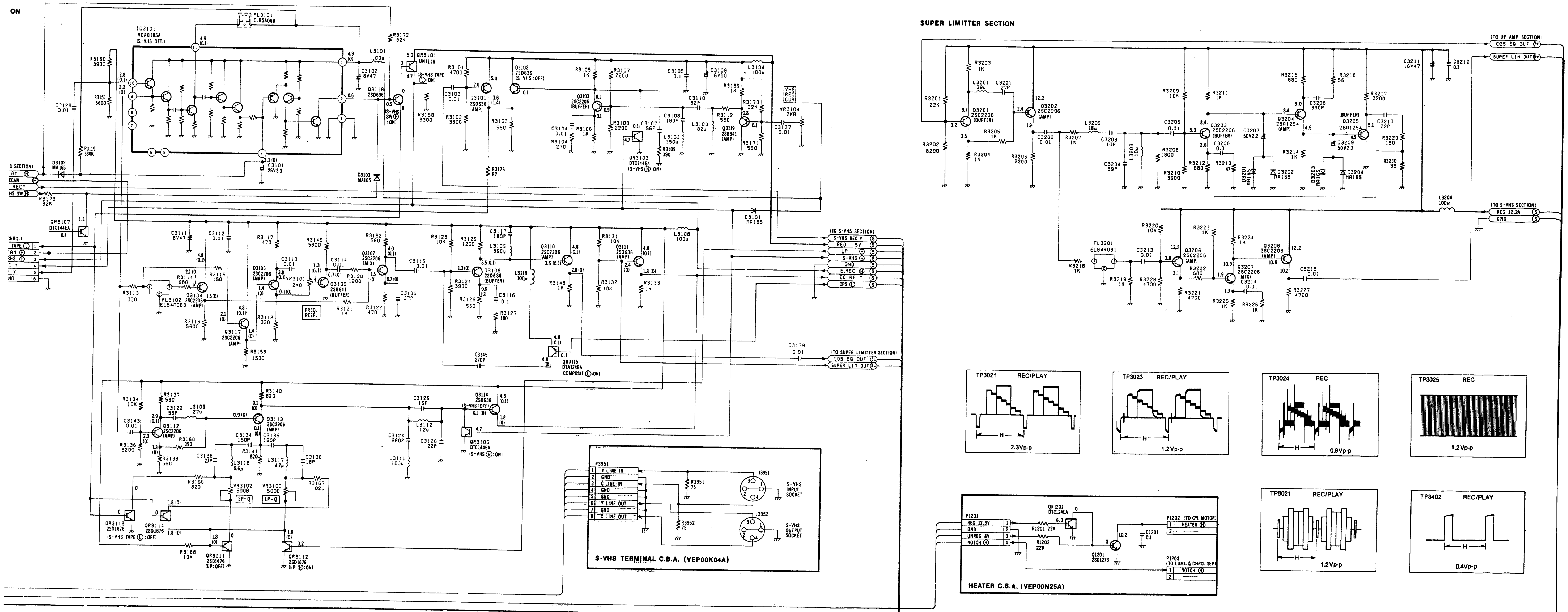




NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)


S-VHS SECTION
RF AMP SECTION
BP3411 (TO LUMI. & CHRO. SEP.)
(TO JUMP COLOUR CORE. SECTION)
P3404 (TO LUMI. & CHRO.)
P3409
BP3412 (TO LUMI. & CHRO. SEP.)
P3402 (TO LUMI. & CHRO. PACK)
P3401 (TO LUMI. & CHRO.)
P3405 (TO OPERATION)
(TO RF AMP SECTION)
IC3405 AN6308
IC3406 AN6308
IC3401 M51647SP
IC3402 AN6306
IC3403 VC2031DP
IC3404 AN3321K
BP3410 (TO LUMI. & CHRO. SEP.)
(TO RF AMP SECTION)
(TO JUMP COLOUR CORE. SECTION)
P3407 (TO POWER)
P3408 (TO LUMI. & CHRO. SEP.)
(TO HEATER)
(TO SUPPER LIMITTER SECTION)
IC3101 VCR0185A (S-VHS DET.)
(TO S-VHS SECTION)
P3101 (TO LUMI. & CHRO.)
SUB EMPH
TP 5V


ON
IC3101 VCR0185A (S-VHS DET.)
FL3101 ELB5A068
SUPER LIMITTER SECTION
(TO RF AMP SECTION)
COS EQ OUT
SUPER LIM OUT
(TO S-VHS SECTION)
REG 12.3V
GND
S-VHS REC Y
REG 5V
LP
S-VHS
E.REC
EQ RF Y
CPS
(TO SUPER LIMITTER SECTION)
FREQ. RESP.
VHS REC CUR
SP-Q
LP-Q
TP3021 REC/PLAY 2.3Vp-p
TP3023 REC/PLAY 1.2Vp-p
TP3024 REC 0.9Vp-p
TP3025 REC 1.2Vp-p
TP8021 REC/PLAY 1.2Vp-p
TP3402 REC/PLAY 0.4Vp-p
P3951
Y LINE IN
GND
C LINE IN
GND
GND
Y LINE OUT
GND
C LINE OUT
J3951 S-VHS INPUT SOCKET
J3952 S-VHS OUTPUT SOCKET
S-VHS TERMINAL C.B.A. (VEP00K04A)
P1201
REG 12.3V
GND
UNREG 8V
NOTCH
P1202 (TO CYL MOTOR)
HEATER
P1203 (TO LUMI.& CHRO. SEP.)
NOTCH
HEATER C.B.A. (VEP00N25A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

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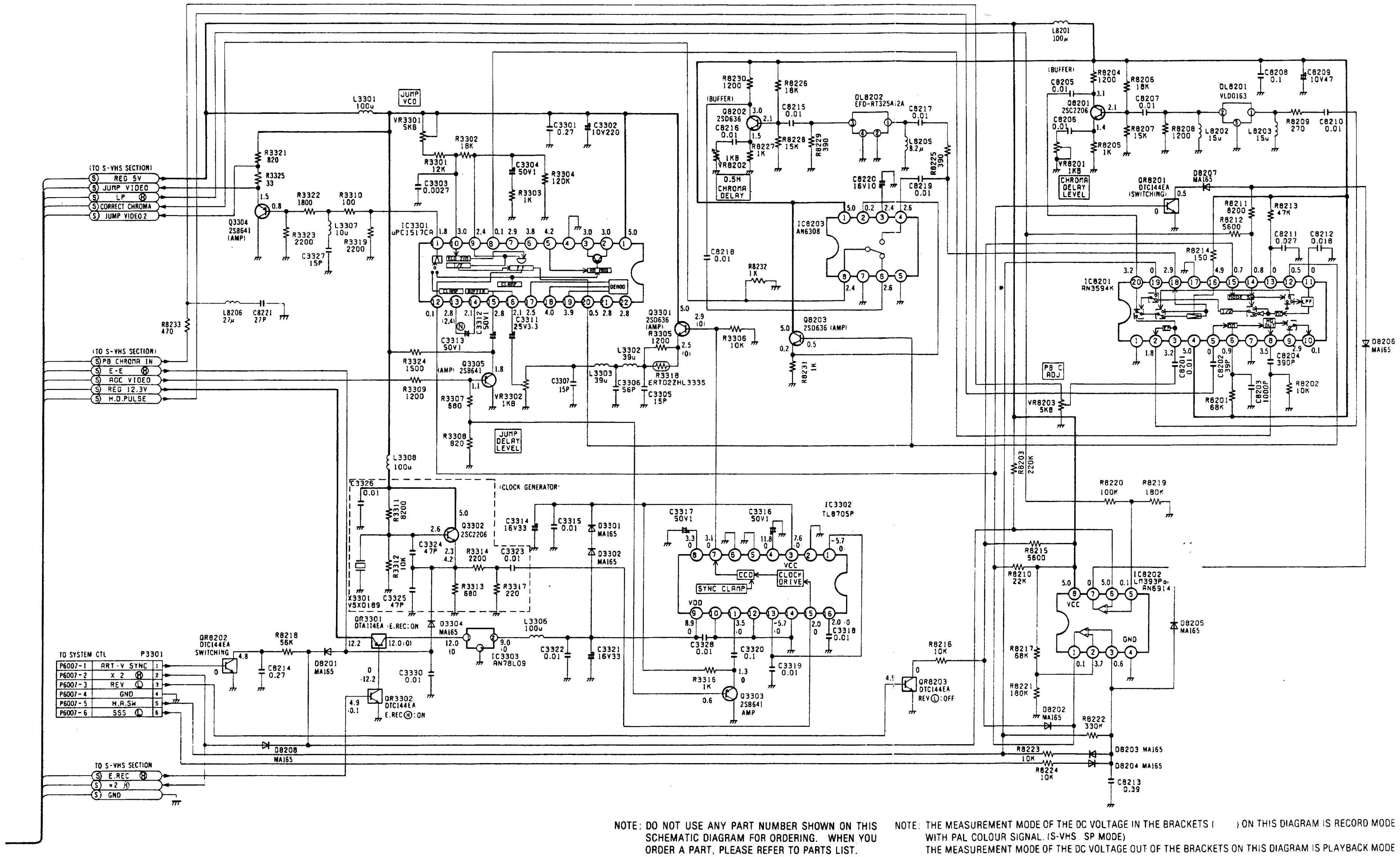
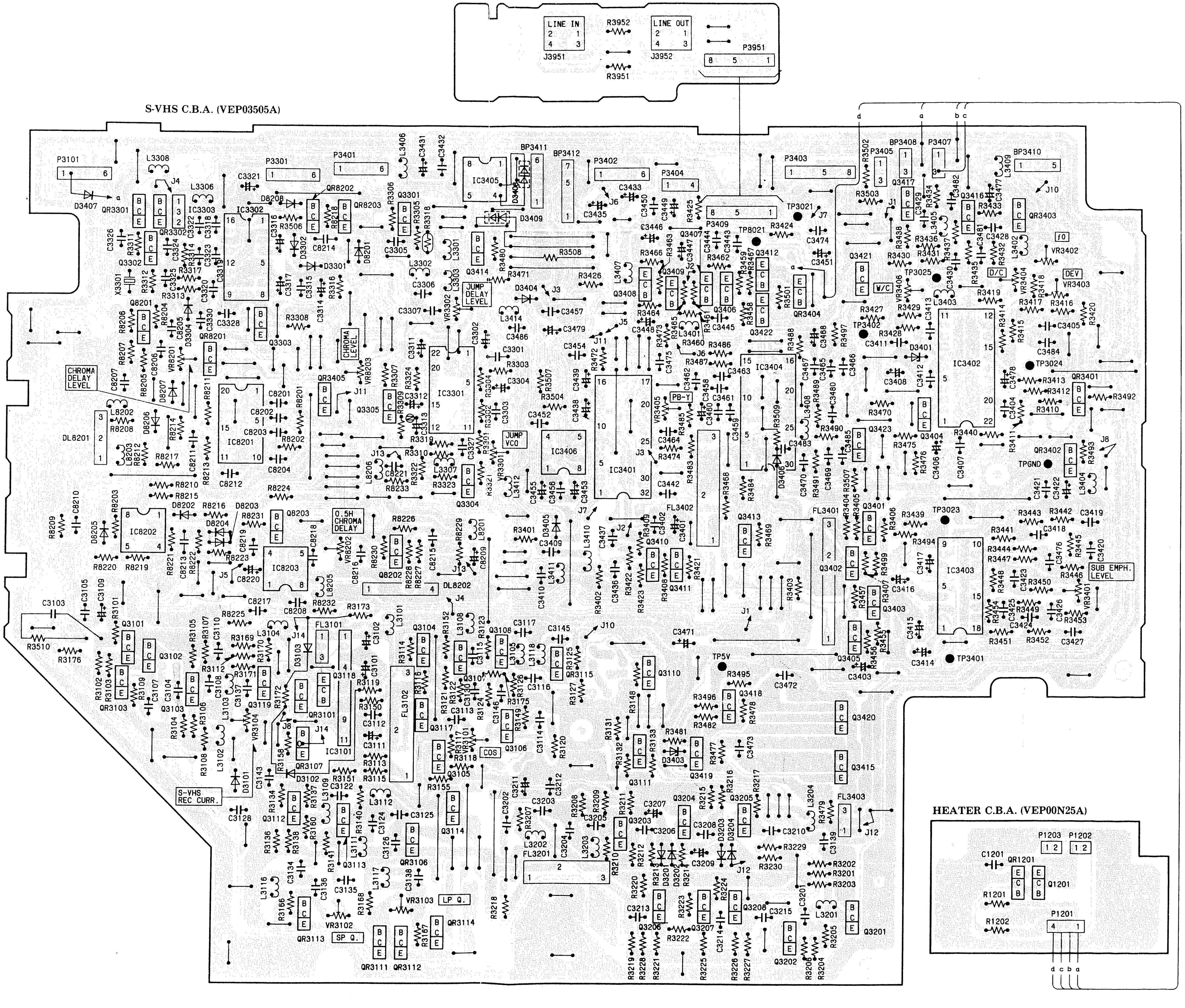
JUMP COLOUR CORRECTION SECTION


(TO S-VHS SECTION)
REG 5V
JUMP VIDEO
LP
CORRECT CHROMA
JUMP VIDEO 2
PB CHROMA IN
E-E
ADC VIDEO
REG 12.3V
H.D.PULSE
TO SYSTEM CTL
P3301
P6007-1 ART-V SYNC
P6007-2 X 2
P6007-3 REV
P6007-4 GND
P6007-5 H.A.SW
P6007-6 SSS
TO S-VHS SECTION
E.REC
X2
GND
IC3301 uPC1517CA
IC3302 TL8705P
IC3303 AN78L09
IC8201 AN3594K
IC8202 LM393P or AN6914
IC8203 AN6308
JUMP VCO
JUMP DELAY LEVEL
CHROMA DELAY LEVEL
0.5H CHROMA DELAY
PB C ADJ
(CLOCK GENERATOR)
SYNC CLAMP
CLOCK DRIVE
CCD
VDD
VCC
GND
Q3304 2SB641 (AMP)
Q3305 2SB641 (AMP)
Q3301 2SD636 (AMP)
Q3302 2SC2206
Q3303 2SB641 AMP
Q8201 2SC2206 (BUFFER)
Q8202 2SD636 (BUFFER)
Q8203 2SD636 (AMP)
QR8201 DTC144EA (SWITCHING)
QR8202 DTC144EA SWITCHING
QR8203 DTC144EA REV(L):OFF
QR3301 DTA114EA (E.REC:ON)
QR3302 DTC144EA E.REC(H):ON
DL8201 VLD0163
DL8202 EFD-RT325A12A
X3301 VSX0189
D8201 MA165
D8202 MA165
D8203 MA165
D8204 MA165
D8205 MA165
D8206 MA165
D8207 MA165
D8208 MA165
D3301 MA165
D3302 MA165
D3304 MA165

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL (S-VHS SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL (S-VHS SP MODE)


S-VHS TERMINAL C.B.A. (VEP00K04A)

S-VHS C.B.A. (VEP03505A)

HEATER C.B.A. (VEP00N25A)

LINE IN
J3951
R3952
R3951
LINE OUT
J3952
P3951
P3101
P3301
P3401
P3402
P3403
P3404
P3405
P3407
BP3408
BP3410
BP3411
BP3412
IC3302
IC3303
IC3405
IC3301
IC3401
IC3402
IC3403
IC3404
IC3406
IC8201
IC8202
IC8203
IC3101
CHROMA DELAY LEVEL
JUMP DELAY LEVEL
JUMP VCO
PB-Y
W/C
D/C
DEV
f0
SUB EMPH. LEVEL
0.5H CHROMA DELAY
DL8201
DL8202
FL3101
FL3102
FL3201
FL3401
FL3402
FL3403
S-VHS REC CURR.
COS
LP Q.
SP Q.
VR3102
VR3103
TP3021
TP8021
TP3025
TP3402
TP3024
TPGND
TP3023
TP5V
TP3401
P1201
P1202
P1203
C1201
QR1201
Q1201
R1201
R1202
a
b
c
d

5-31

Head amplifier circuit board assembly

P002	4822 267 50913	CONNECTOR
P501	4822 265 40859	CONNECTOR
P502	4822 265 40838	CONNECTOR

C501	4822 122 33747	CHIP 50V 0.01 µF
C505	4822 122 33747	CHIP 50V 0.01 µF
C506	4822 124 21533	E.CAP 16V 10 µF
C507	4822 122 33672	CHIP 25V 0.047 µF
C508	4822 122 33731	CHIP 25V 0.1 µF
C509	4822 122 33747	CHIP 50V 0.01 µF
C510	4822 122 33747	CHIP 50V 0.01 µF
C511	4822 122 33747	CHIP 50V 0.01 µF
C512	4822 122 33747	CHIP 50V 0.01 µF
C513	4822 124 41128	E.CAP 6.3V 22 µF
C514	4822 121 90053	S.CAP 16V 0.1 µF
C515	4822 122 33905	CHIP 50V 1000 pF
C517	4822 122 33747	CHIP 50V 0.01 µF
C518	4822 124 21533	E.CAP 16V 10 µF
C519	4822 124 21533	E.CAP 16V 10 µF
C521	4822 122 33747	CHIP 50V 0.01 µF
C522	4822 122 33747	CHIP 50V 0.01 µF
C524	4822 124 21533	E.CAP 16V 10 µF
C526	4822 122 33747	CHIP 50V 0.01 µF
C527	4822 122 33905	CHIP 50V 1000 pF
C528	4822 122 33747	CHIP 50V 0.01 µF
C529	4822 122 33747	CHIP 50V 0.01 µF
C530	4822 122 33672	CHIP 25V 0.047 µF
C531	4822 124 21513	E.CAP 6.3V 47 µF
C534	4822 124 40839	E.CAP 50V 1 µF
C535	4822 122 33747	CHIP 50V 0.01 µF
C536	4822 121 90053	S.CAP 16V 0.1 µF
C538	4822 124 21533	E.CAP 16V 10 µF
C539	4822 122 33747	CHIP 50V 0.01 µF
C551	4822 122 33747	CHIP 50V 0.01 µF
C552	4822 124 21533	E.CAP 16V 10 µF
C553	4822 122 33672	CHIP 25V 0.047 µF
C554	4822 122 33945	C.CAP 50V 820 pF
C555	4822 124 40838	E.CAP 50V 0.22 µF
C556	4822 122 33904	CHIP 50V 100 pF
C557	4822 122 33904	CHIP 50V 100 pF
C558	4822 124 40838	E.CAP 50V 0.22 µF
C559	4822 122 33944	C.CAP 50V 1200 pF
C560	4822 122 33944	C.CAP 50V 1200 pF
C561	4822 124 21532	E.CAP 6.3V 33 µF
C562	4822 122 33747	CHIP 50V 0.01 µF
C563	4822 122 33747	CHIP 50V 0.01 µF
C564	4822 122 33731	CHIP 25V 0.1 µF
C565	4822 122 33731	CHIP 25V 0.1 µF
C567	5322 122 32448	CHIP 50V 10 pF
C568	5322 122 32448	CHIP 50V 10 pF

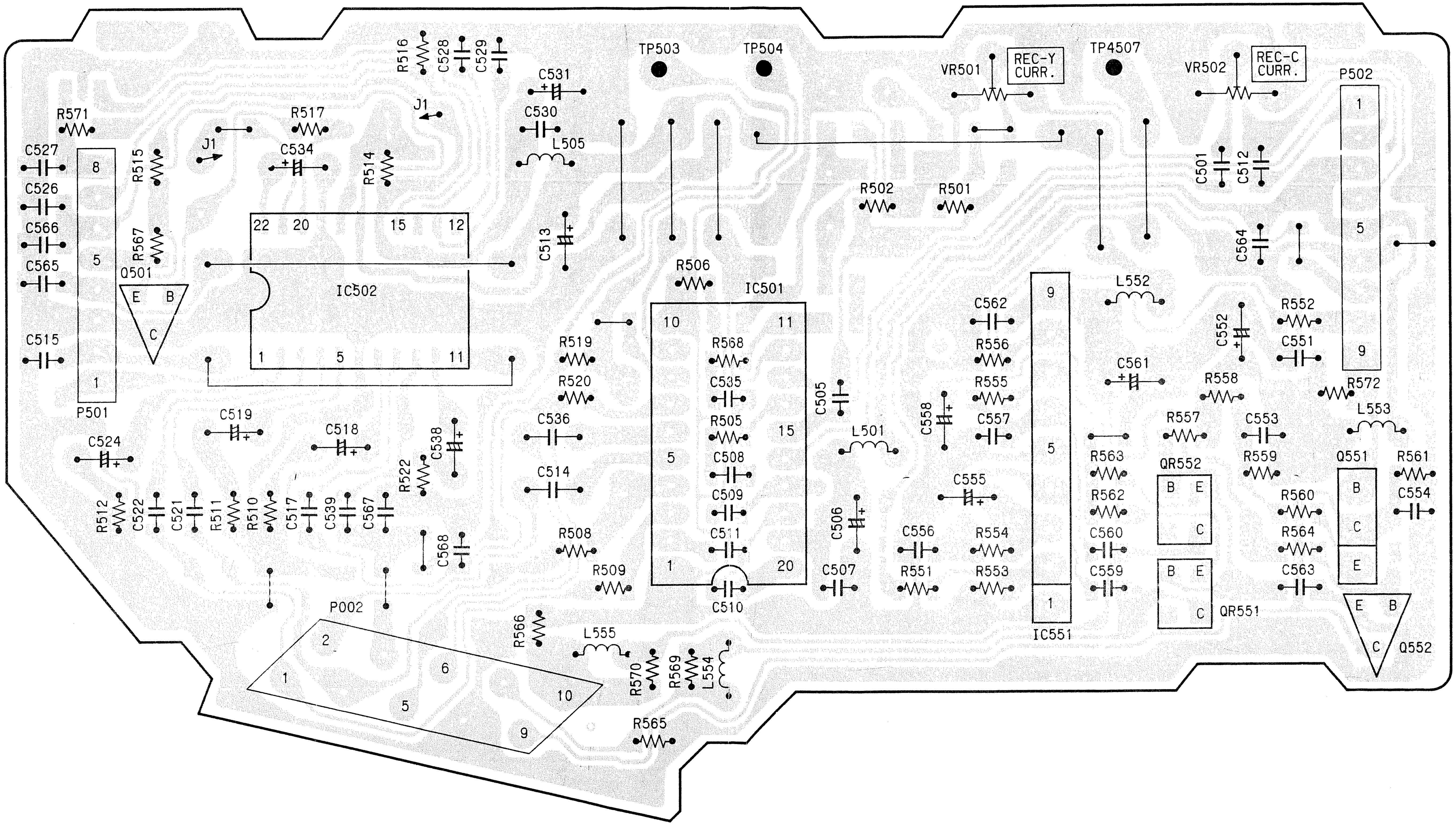
IC501	4822 209 60574	AN3224K
IC502	4822 209 72821	AN3311S
IC551	4822 209 60584	UPC1531HA

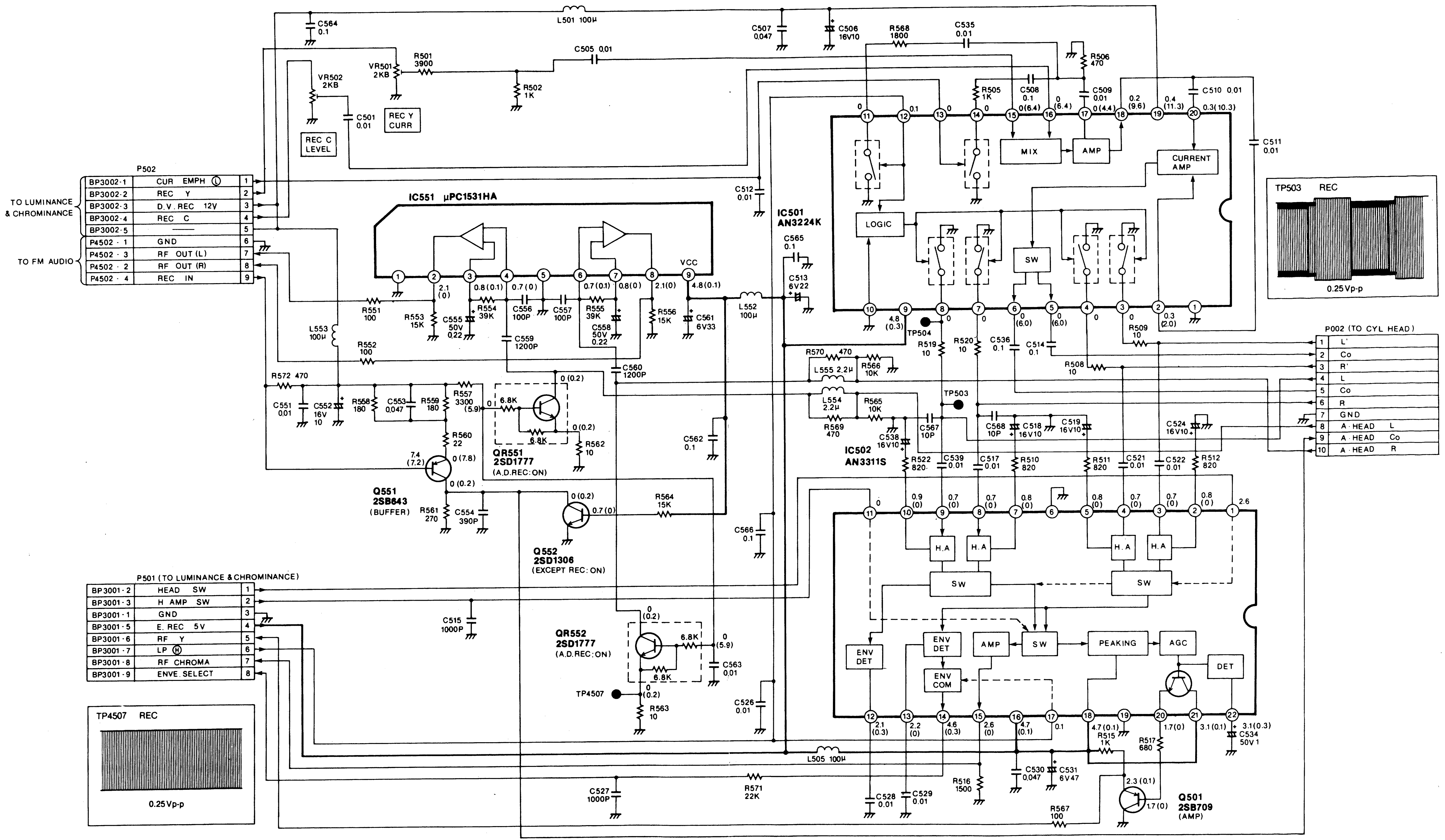
L501	4822 157 51975
L505	4822 157 51975
L552	4822 157 51975
L553	4822 157 51975
L554	4822 157 60016
L555	4822 157 60016

Q501	4822 130 42661	2SB709
Q551	4822 130 61591	2SB643
Q552	4822 130 61623	2SD1306
QR551	4822 130 61624	2SD1777C1
QR552	4822 130 61624	2SD1777C1

R501	4822 111 91527	CHIP 3.9 kΩ
R502	4822 111 91516	CHIP 1 kΩ
R505	4822 111 91516	CHIP 1 kΩ
R506	4822 116 90446	CHIP 470
R508	4822 116 90457	CHIP 10
R509	4822 116 90457	CHIP 10
R510	4822 116 81034	CHIP 820
R511	4822 116 81034	CHIP 820
R512	4822 116 81034	CHIP 820
R515	4822 111 91516	CHIP 1 kΩ
R516	4822 116 90458	CHIP 1.5 kΩ
R517	4822 116 90463	CHIP 680
R519	4822 116 90457	CHIP 10
R520	4822 116 90457	CHIP 10
R522	4822 116 81034	CHIP 820
R551	4822 116 90441	CHIP 100
R552	4822 116 90441	CHIP 100
R553	4822 111 91498	CHIP 15 kΩ
R554	4822 116 90445	CHIP 39 kΩ
R555	4822 116 90445	CHIP 39 kΩ
R556	4822 111 91498	CHIP 15 kΩ
R557	4822 111 91526	CHIP 3.3 kΩ
R558	4822 116 90438	CHIP 180
R559	4822 116 90438	CHIP 180
R560	4822 116 90467	M.RES 22
R561	4822 116 80882	CHIP 270
R562	4822 116 90457	CHIP 10
R563	4822 116 90457	CHIP 10
R564	4822 111 91498	CHIP 15 kΩ
R565	4822 111 91517	CHIP 10 kΩ
R566	4822 111 91517	CHIP 10 kΩ
R567	4822 116 90441	CHIP 100
R568	0000 000 00000	
R569	4822 116 90446	CHIP 470
R570	4822 116 90446	CHIP 470

VR501	4822 101 30607	V.RES 2 kΩ
VR502	4822 101 30607	V.RES 2 kΩ


R516
C528
C529
C531
J1
TP503
TP504
VR501
REC-Y CURR.
TP4507
VR502
REC-C CURR.
P502
R571
R517
C530
J1
L505
C527
C534
R515
R514
C501
C512
C526
R502
R501
C566
R567
22
20
15
12
C513
C564
C565
Q501
E
B
C
IC502
R506
IC501
L552
C515
1
5
11
10
11
R519
R568
C562
R556
C552
R552
C551
P501
R520
C535
C505
C561
R572
R555
R558
C519
C524
C518
C538
C536
R505
15
L501
C558
C557
R557
C553
L553
R522
C514
C508
C555
R563
QR552
R559
Q551
R561
R512
C522
C521
R511
R510
C517
C539
C567
C509
C506
R562
B
E
C
R560
C554
C568
R508
C511
C556
R554
C560
R564
R509
C507
R551
R553
C559
C563
20
C510
P002
R566
L555
QR551
Q552
2
6
1
5
10
9
R570
R569
L554
R565


P502
TO LUMINANCE & CHROMINANCE
BP3002-1 CUR EMPH Ⓛ 1
BP3002-2 REC Y 2
BP3002-3 D.V. REC 12V 3
BP3002-4 REC C 4
BP3002-5 —— 5
TO FM AUDIO
P4502 - 1 GND 6
P4502 - 3 RF OUT (L) 7
P4502 - 2 RF OUT (R) 8
P4502 - 4 REC IN 9
C564 0.1
L501 100μ
VR502 2KB
VR501 2KB
R501 3900
R502 1K
C505 0.01
C501 0.01
REC C LEVEL
REC Y CURR
C507 0.047
C506 16V10
R568 1800
C535 0.01
R506 470
R505 1K
C508 0.1
C509 0.01
C510 0.01
C511 0.01
IC551 μPC1531HA
VCC
R551 100
R553 15K
C555 50V 0.22
R554 39K
C556 100P
C557 100P
R555 39K
C558 50V 0.22
R556 15K
C561 6V33
C559 1200P
C560 1200P
L553 100μ
R552 100
R572 470
C551 0.01
C552 16V 10
R558 180
C553 0.047
R559 180
R557 3300
R560 22
R562 10
QR551 2SD1777 (A.D.REC:ON)
6.8K
Q551 2SB643 (BUFFER)
R561 270
C554 390P
Q552 2SD1306 (EXCEPT REC: ON)
R564 15K
C562 0.1
C512 0.01
IC501 AN3224K
C565 0.1
C513 6V22
L552 100μ
LOGIC
MIX
AMP
CURRENT AMP
SW
TP504
R519 10
R520 10
C536 0.1
C514 0.1
R508 10
R509 10
TP503 REC
0.25Vp-p
P002 (TO CYL HEAD)
1 L'
2 Co
3 R'
4 L
5 Co
6 R
7 GND
8 A·HEAD L
9 A·HEAD Co
10 A·HEAD R
R570 470
R566 10K
L555 2.2μ
L554 2.2μ
R565 10K
R569 470
TP503
C538 16V10
C567 10P
C568 10P
C518 16V10
C519 16V10
C524 16V10
IC502 AN3311S
R522 820
C539 0.01
C517 0.01
R510 820
R511 820
C521 0.01
C522 0.01
R512 820
H.A
SW
ENV DET
ENV DET
ENV COM
AMP
SW
PEAKING
AGC
DET
P501 (TO LUMINANCE & CHROMINANCE)
BP3001-2 HEAD SW 1
BP3001-3 H AMP SW 2
BP3001-1 GND 3
BP3001-5 E. REC 5V 4
BP3001-6 RF Y 5
BP3001-7 LP Ⓗ 6
BP3001-8 RF CHROMA 7
BP3001-9 ENVE. SELECT 8
C515 1000P
QR552 2SD1777 (A.D.REC:ON)
6.8K
C563 0.01
TP4507
R563 10
C566 0.1
C526 0.01
C527 1000P
R571 22K
L505 100μ
C528 0.01
C529 0.01
R516 1500
C530 0.047
C531 6V47
R515 1K
R517 680
C534 50V 1
R567 100
Q501 2SB709 (AMP)
TP4507 REC
0.25Vp-p

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THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

HiFi Audio circuit board assembly

)—

P4501	4822 267 60259	CONNECTOR
P4502	4822 265 30387	CONNECTOR
P4503	4822 265 30387	CONNECTOR
P4504	4822 267 30572	CONNECTOR

⊣⊢

C4501	4822 124 22883	E.CAP 10V 47 µF
C4502	4822 121 51459	P.CAP 50V 820 pF
C4505	4822 124 22885	E.CAP 16V 10 µF
C4506	4822 124 22883	E.CAP 10V 47 µF
C4507	4822 124 22889	E.CAP 25V 4.7 µF
C4508	4822 124 21533	E.CAP 16V 10 µF
C4509	4822 124 22821	E.CAP 6.3V 100 µF
C4510	4822 121 51445	P.CAP 50V 2700 pF
C4511	4822 124 22885	E.CAP 16V 10 µF
C4512	4822 121 42252	P.CAP 50V 0.01 µF
C4513	4822 124 22885	E.CAP 16V 10 µF
C4514	4822 124 22881	E.CAP 25V 4.7 µF
C4515	4822 121 42257	P.CAP 50V 0.022 µF
C4516	4822 124 21563	E.CAP 16V 10 µF
C4517	4822 121 42168	P.CAP 50V 0.047 µF
C4518	4822 124 22825	E.CAP 10V 47 µF
C4519	4822 124 22887	E.CAP 25V 4.7 µF
C4520	4822 124 40836	E.CAP 25V 4.7 µF
C4521	4822 124 22889	E.CAP 25V 4.7 µF
C4522	4822 124 22821	E.CAP 6.3V 100 µF
C4523	4822 124 21533	E.CAP 16V 10 µF
C4524	4822 124 22883	E.CAP 10V 47 µF
C4525	4822 121 51445	P.CAP 50V 2700 pF
C4526	4822 124 22885	E.CAP 16V 10 µF
C4527	4822 121 51459	P.CAP 50V 820 pF
C4530	4822 124 22885	E.CAP 16V 10 µF
C4531	4822 121 42252	P.CAP 50V 0.01 µF
C4532	4822 124 22885	E.CAP 16V 10 µF
C4533	4822 124 22889	E.CAP 25V 4.7 µF
C4534	4822 121 42257	P.CAP 50V 0.022 µF
C4535	4822 122 32209	C.CAP 50V 10 pF
C4536	4822 124 22885	E.CAP 16V 10 µF
C4537	4822 121 42168	P.CAP 50V 0.047 µF
C4538	4822 124 22825	E.CAP 10V 47 µF
C4539	4822 124 22884	E.CAP 25V 4.7 µF
C4540	4822 124 22886	E.CAP 16V 47 µF
C4541	4822 124 22891	E.CAP 50V 1 µF
C4542	4822 122 32247	C.CAP 50V 0.01 µF
C4543	4822 124 22885	E.CAP 16V 10 µF
C4544	4822 124 22885	E.CAP 16V 10 µF
C4545	4822 122 32308	C.CAP 50V 330 pF
C4546	4822 121 42303	P.CAP 50V 1000 pF
C4547	4822 124 22888	E.CAP 25V 3.3 µF
C4548	5322 122 32072	C.CAP 50V 33 pF
C4549	4822 122 32297	C.CAP 50V 100 pF
C4550	4822 122 32247	C.CAP 50V 0.01 µF
C4551	4822 122 32247	C.CAP 50V 0.01 µF
C4552	4822 122 32247	C.CAP 50V 0.01 µF
C4553	4822 124 22892	E.CAP 6.3V 47 µF
C4554	4822 124 22882	E.CAP 10V 33 µF
C4555	4822 124 22885	E.CAP 16V 10 µF
C4556	4822 121 42303	P.CAP 50V 1000 pF
C4557	4822 124 22888	E.CAP 25V 3.3 µF
C4558	4822 122 32308	C.CAP 50V 330 pF
C4559	4822 124 22885	E.CAP 16V 10 µF
C4560	4822 122 32218	C.CAP 50V 33 pF
C4561	4822 122 32297	C.CAP 50V 100 pF
C4562	4822 122 32247	C.CAP 50V 0.01 µF
C4563	4822 122 32247	C.CAP 50V 0.01 µF
C4564	4822 124 22892	E.CAP 6.3V 47 µF
C4565	4822 122 32209	C.CAP 50V 10 pF
C4566	4822 122 32247	C.CAP 50V 0.01 µF
C4567	4822 124 22892	E.CAP 6.3V 47 µF
C4572	4822 122 32247	C.CAP 50V 0.01 µF
C4573	4822 124 22827	E.CAP 16V 33 µF
C4574	4822 122 32247	C.CAP 50V 0.01 µF
C4576	4822 122 32247	C.CAP 50V 0.01 µF
C4577	4822 121 42164	P.CAP 50V 0.15 µF
C4578	4822 122 33948	C.CAP 50V 220 pF
C4579	4822 122 32236	C.CAP 50V 470 pF
C4580	4822 121 42303	P.CAP 50V 1000 pF
C4581	4822 122 32247	C.CAP 50V 0.01 µF
C4582	4822 124 22892	E.CAP 6.3V 47 µF
C4583	4822 122 32247	C.CAP 50V 0.01 µF
C4584	4822 124 21525	E.CAP 50V 0.1 µF
C4585	4822 122 32247	C.CAP 50V 0.01 µF
C4586	4822 124 21536	E.CAP 50V 2.2 µF
C4587	4822 122 32247	C.CAP 50V 0.01 µF
C4589	4822 121 42179	P.CAP 50V 0.1 µF
C4590	4822 124 40823	E.CAP 25V 4.7 µF
C4591	4822 124 22887	E.CAP 25V 4.7 µF
C4592	4822 124 40823	E.CAP 25V 4.7 µF
C4593	4822 124 22887	E.CAP 25V 4.7 µF
C4594	4822 124 22827	E.CAP 16V 33 µF
C4595	4822 124 22827	E.CAP 16V 33 µF
C4596	4822 124 22893	E.CAP 35V 3.3 µF
C4597	4822 124 22893	E.CAP 35V 3.3 µF
C4598	4822 124 40834	E.CAP 25V 3.3 µF
C4599	4822 124 21533	E.CAP 16V 10 µF
C4600	4822 124 21513	E.CAP 6.3V 47 µF
C4601	4822 124 21533	E.CAP 16V 10 µF
C4602	4822 124 21564	E.CAP 10V 100 µF
C4603	4822 124 21564	E.CAP 10V 100 µF
C4604	4822 124 21533	E.CAP 16V 10 µF
C4605	4822 124 21515	E.CAP 10V 33 µF
C4606	4822 124 22838	E.CAP 10V 33 µF
C4607	4822 124 40839	E.CAP 50V 1 µF
C4608	4822 124 21536	E.CAP 50V 2.2 µF
C4651	4822 122 32247	C.CAP 50V 0.01 µF
C4652	4822 121 90054	S.CAP 16V 0.047 µF
C4653	4822 121 90054	S.CAP 16V 0.047 µF
C4654	4822 122 32247	C.CAP 50V 0.01 µF
C4655	4822 124 21563	E.CAP 16V 10 µF
C4656	4822 122 32247	C.CAP 50V 0.01 µF
C4657	4822 121 90054	S.CAP 16V 0.047 µF
C4658	4822 121 90054	S.CAP 16V 0.047 µF
C4659	4822 122 32247	C.CAP 50V 0.01 µF
C4660	4822 122 32309	C.CAP 50V 390 pF
C4661	4822 122 32309	C.CAP 50V 390 pF
C4662	4822 124 22879	E.CAP 16V 33 µF
C4663	4822 124 40823	E.CAP 25V 4.7 µF
C4701	4822 124 22894	E.CAP 50V 0.33 µF
C4702	4822 121 42261	P.CAP 50V 0.027 µF
C4703	4822 124 21533	E.CAP 16V 10 µF
C4704	4822 124 22894	E.CAP 50V 0.33 µF
C4705	4822 121 42261	P.CAP 50V 0.027 µF
C4706	4822 124 21533	E.CAP 16V 10 µF
C4707	4822 121 42262	P.CAP 50V 0.033 µF
C4751	4822 122 32247	C.CAP 50V 0.01 µF

D4501	4822 130 32362	MA165
D4502	4822 130 32361	MA154WK
D4503	4822 130 32362	MA165
D4504	4822 130 32714	MA154WA
D4505	4822 130 32714	MA154WA
D4506	4822 130 32362	MA165
D4508	4822 130 32362	MA165
D4509	4822 130 32362	MA165
D4511	4822 130 81393	MA156
D4512	4822 130 32362	MA165
D4513	4822 130 32362	MA165
D4651	4822 130 32362	MA165

FL4501	4822 242 72505	FILTER
FL4503	4822 242 72505	FILTER
FL4506	4822 242 72502	FILTER
FL4651	4822 242 72503	FILTER
FL4652	4822 242 72504	FILTER
FL4653	4822 242 72501	FILTER

IC4501	4822 209 60579	BA7721S
IC4502	4822 209 60578	BA7711S
IC4503	4822 209 60576	AN3920K
IC4504	4822 209 60577	BA7056LS
IC4651	4822 209 82516	TA7302P
IC4652	4822 209 82516	TA7302P

L4501	4822 157 51975
L4504	4822 157 52163
L4505	4822 157 51975
L4506	4822 157 51975
L4651	4822 157 51975

Q4501	4822 130 41324	2SD638
Q4502	4822 130 42251	2SB641
Q4503	4822 130 41605	2SD636
Q4504	4822 130 61595	2SD1330
Q4505	4822 130 61595	2SD1330
Q4651	4822 130 41605	2SD636
Q4652	4822 130 41605	2SD636
Q4701	4822 130 41605	2SD636
Q4702	4822 130 41605	2SD636
QR4501	4822 111 91319	UN1213
QR4503	4822 111 91319	UN1213
QR4507	4822 111 91223	UN1212
QR4508	4822 130 60556	UN1211
QR4509	4822 111 91319	UN1213
QR4510	4822 111 91222	UN1112
QR4511	4822 111 91223	UN1212
QR4651	4822 111 91222	UN1112
QR4652	4822 111 91223	UN1212
QR4751	4822 130 60259	2SD1676

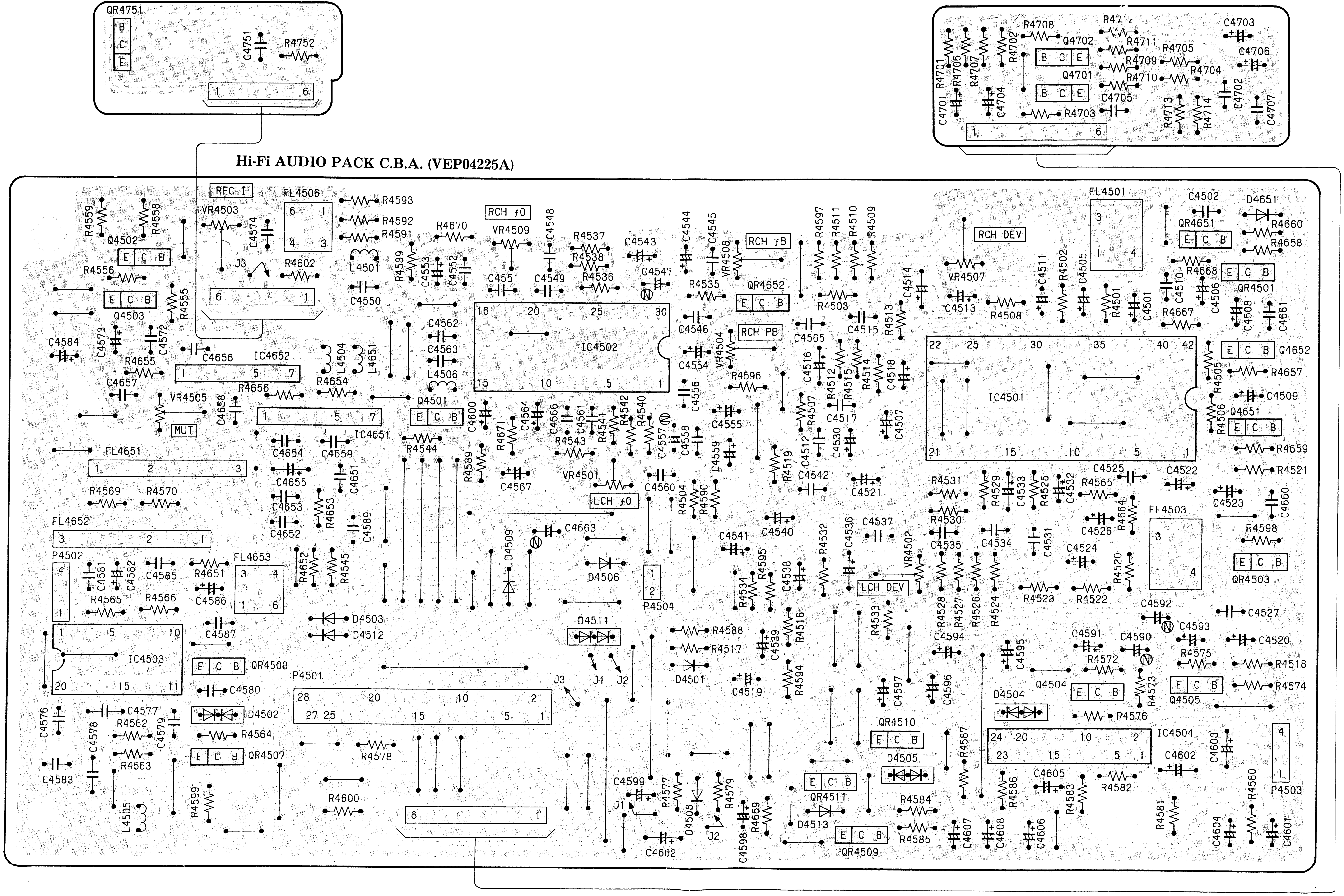
R4501	4822 116 81445	M.RES.1.8 kΩ
R4502	4822 116 81445	M.RES.1.8 kΩ
R4503	4822 116 52233	C.RES. 10 kΩ
R4504	4822 116 81394	M.RES.2.2 kΩ
R4505	4822 116 81439	C.RES.2.2 MΩ
R4506	4822 116 52271	C.RES. 33 kΩ
R4507	4822 116 81446	M.RES. 2 kΩ
R4508	4822 116 81449	M.RES.3.6 kΩ
R4509	4822 116 81442	M.RES. 10 kΩ
R4510	4822 116 81443	M.RES.1.1 kΩ
R4511	4822 116 52303	C.RES.8.2 kΩ
R4512	4822 116 81451	M.RES.3.9 kΩ
R4514	4822 116 81444	M.RES.1.2 kΩ
R4515	4822 116 52233	C.RES. 10 kΩ
R4516	4822 116 81448	M.RES. 33 kΩ
R4517	4822 116 52257	C.RES. 22 kΩ
R4518	4822 116 52175	C.RES. 100
R4519	4822 116 81394	M.RES.2.2 kΩ
R4520	4822 116 52271	C.RES. 33 kΩ
R4521	4822 116 81439	C.RES.2.2 MΩ
R4522	4822 116 81445	M.RES.1.8 kΩ
R4523	4822 116 81445	M.RES.1.8 kΩ
R4524	4822 116 81446	M.RES. 2 kΩ
R4525	4822 116 81449	M.RES.3.6 kΩ
R4526	4822 116 81442	M.RES. 10 kΩ
R4527	4822 116 81443	M.RES.1.1 kΩ
R4528	4822 116 52303	C.RES.8.2 kΩ
R4529	4822 116 52207	C.RES.1.2 kΩ
R4530	4822 116 81451	M.RES.3.9 kΩ
R4531	4822 116 52233	C.RES. 10 kΩ
R4532	4822 116 81444	M.RES.1.2 kΩ
R4533	4822 116 81448	M.RES. 33 kΩ
R4534	4822 116 52234	C.RES.100 kΩ
R4535	4822 116 52233	C.RES. 10 kΩ
R4536	4822 116 52249	C.RES.1.8 kΩ
R4537	4822 116 81447	M.RES. 24 kΩ
R4538	4822 116 52263	C.RES.2.7 kΩ
R4539	4822 116 81452	M.RES.5.6 kΩ
R4539	4822 116 81447	M.RES. 24 kΩ
R4540	4822 116 52249	C.RES.1.8 kΩ
R4542	4822 116 52263	C.RES.2.7 kΩ
R4543	4822 116 81453	M.RES.7.5 kΩ
R4544	4822 116 52269	C.RES.3.3 kΩ
R4545	4822 116 52249	C.RES.1.8 kΩ
R4555	4822 116 52233	C.RES. 10 kΩ
R4556	4822 116 52283	C.RES.4.7 kΩ
R4558	4822 116 52283	C.RES.4.7 kΩ
R4559	4822 116 52204	C.RES. 1 kΩ
R4562	4822 116 52269	C.RES.3.3 kΩ
R4563	4822 116 52264	C.RES. 27 kΩ
R4564	4822 116 52256	C.RES.2.2 kΩ
R4565	4822 116 52284	C.RES. 47 kΩ
R4566	4822 116 52204	C.RES. 1 kΩ
R4569	4822 116 52249	C.RES.1.8 kΩ
R4570	4822 116 52249	C.RES.1.8 kΩ
R4572	4822 116 52239	C.RES.120 kΩ
R4573	4822 116 52175	C.RES. 100
R4574	4822 116 52239	C.RES.120 kΩ
R4575	4822 116 52175	C.RES. 100
R4576	4822 116 52199	C.RES. 68
R4577	4822 116 52263	C.RES.2.7 kΩ
R4578	4822 116 52233	C.RES. 10 kΩ
R4579	4822 116 52263	C.RES.2.7 kΩ
R4580	4822 116 52233	C.RES. 10 kΩ
R4581	4822 116 52199	C.RES. 68
R4582	4822 116 52199	C.RES. 68
R4583	4822 116 52233	C.RES. 10 kΩ
R4584	4822 116 52304	C.RES. 82 kΩ
R4585	4822 116 52204	C.RES. 1 kΩ
R4586	4822 116 52284	C.RES. 47 kΩ
R4587	4822 116 52283	C.RES.4.7 kΩ
R4588	4822 116 52264	C.RES. 27 kΩ
R4589	4822 116 81397	M.RES.4.7 kΩ
R4590	4822 116 81397	M.RES.4.7 kΩ
R4591	4822 116 52228	C.RES. 680
R4592	4822 116 52289	C.RES.5.6 kΩ
R4593	4822 116 52283	C.RES.4.7 kΩ
R4594	4822 116 81454	M.RES. 820
R4595	4822 116 81454	M.RES. 820
R4596	4822 116 52296	C.RES.6.8 kΩ
R4597	4822 116 52296	C.RES.6.8 kΩ
R4598	4822 116 52284	C.RES. 47 kΩ
R4599	4822 116 52233	C.RES. 10 kΩ
R4600	4822 116 52204	C.RES. 1 kΩ
R4602	4822 116 52207	C.RES.1.2 kΩ
R4651	4822 116 52204	C.RES. 1 kΩ
R4652	4822 116 52204	C.RES. 1 kΩ
R4653	4822 116 52256	C.RES.2.2 kΩ
R4654	4822 116 52175	C.RES. 100
R4655	4822 116 52256	C.RES.2.2 kΩ
R4656	4822 116 52222	C.RES. 390
R4657	4822 116 52235	C.RES.1000 kΩ
R4658	4822 116 52256	C.RES.2.2 kΩ
R4659	4822 116 52235	C.RES.1000 kΩ
R4660	4822 116 52256	C.RES.2.2 kΩ
R4664	4822 116 52238	C.RES. 12 kΩ
R4665	4822 116 52239	C.RES.120 kΩ
R4667	4822 116 52238	C.RES. 12 kΩ
R4668	4822 116 52239	C.RES.120 kΩ
R4669	4822 116 52303	C.RES.8.2 kΩ
R4670	4822 116 81441	M.RES. 2W 1 kΩ
R4671	4822 116 81441	M.RES. 2W 1 kΩ
R4701	4822 116 52252	C.RES.180 kΩ
R4702	4822 116 52234	C.RES.100 kΩ
R4703	4822 116 52249	C.RES.1.8 kΩ
R4704	4822 116 52249	C.RES.1.8 kΩ
R4705	4822 116 52217	C.RES. 270
R4706	4822 116 52252	C.RES.180 kΩ
R4707	4822 116 52234	C.RES.100 kΩ
R4708	4822 116 52249	C.RES.1.8 kΩ
R4709	4822 116 52249	C.RES.1.8 kΩ
R4710	4822 116 52217	C.RES. 270
R4711	4822 116 52207	C.RES.1.2 kΩ
R4712	4822 116 52207	C.RES.1.2 kΩ
R4713	4822 116 52271	C.RES. 33 kΩ
R4714	4822 116 52215	C.RES. 220
R4741	4822 116 52204	C.RES. 1 kΩ

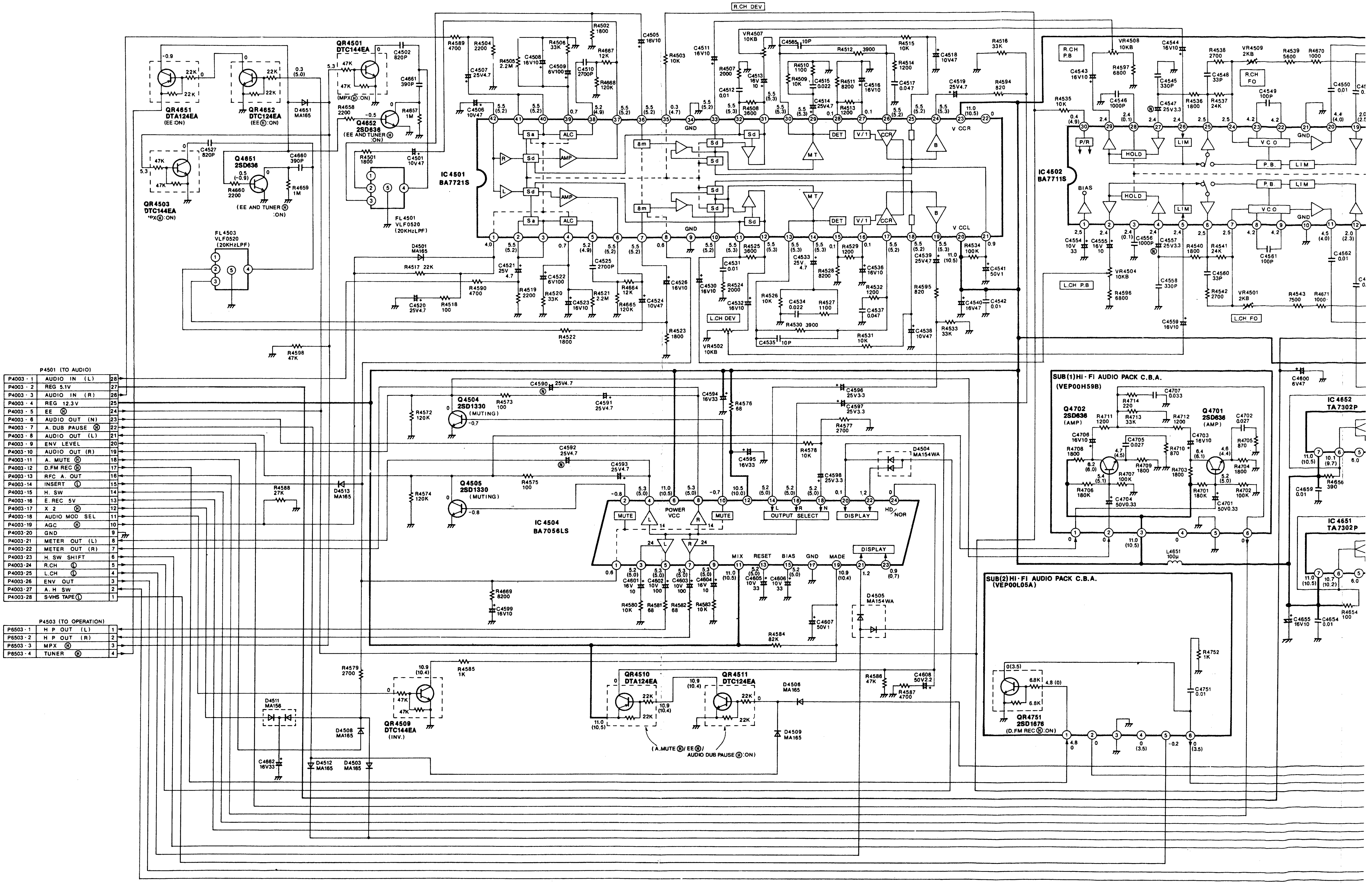
VR4501	4822 100 10736	V.RES. 2 kΩ
VR4502	4822 101 30611	V.RES.
VR4503	4822 101 30609	V.RES. 2 kΩ
VR4504	4822 101 30611	V.RES.
VR4505	4822 101 30612	V.RES. 50 kΩ
VR4507	4822 101 30611	V.RES.
VR4508	4822 101 30611	V.RES.
VR4509	4822 100 10736	V.RES. 2 kΩ

SUB (2) Hi-Fi AUDIO PACK C.B.A. (VEP00L05A)

SUB (1) Hi-Fi AUDIO PACK C.B.A. (VEP00H59B)

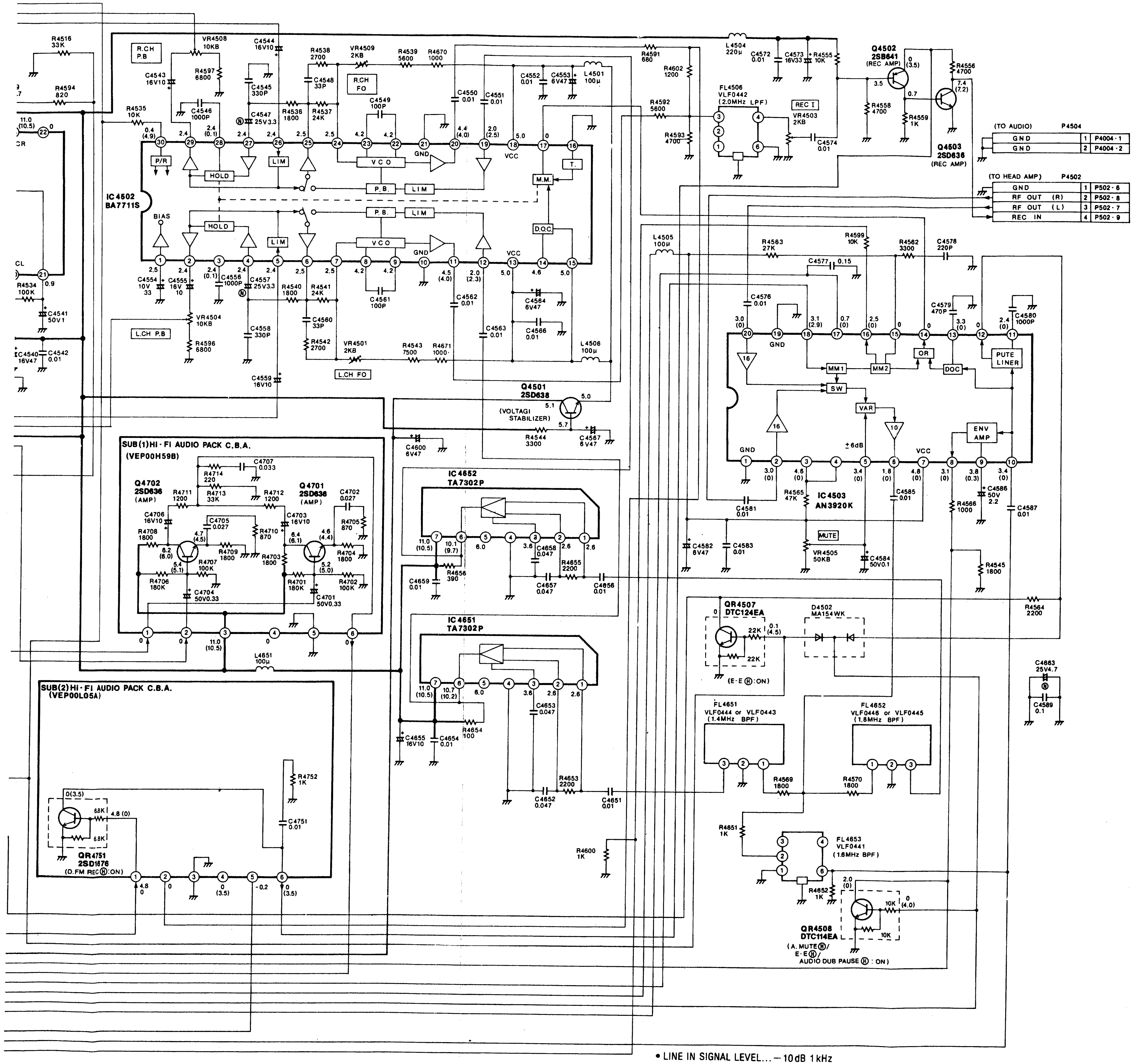
Hi-Fi AUDIO PACK C.B.A. (VEP04225A)

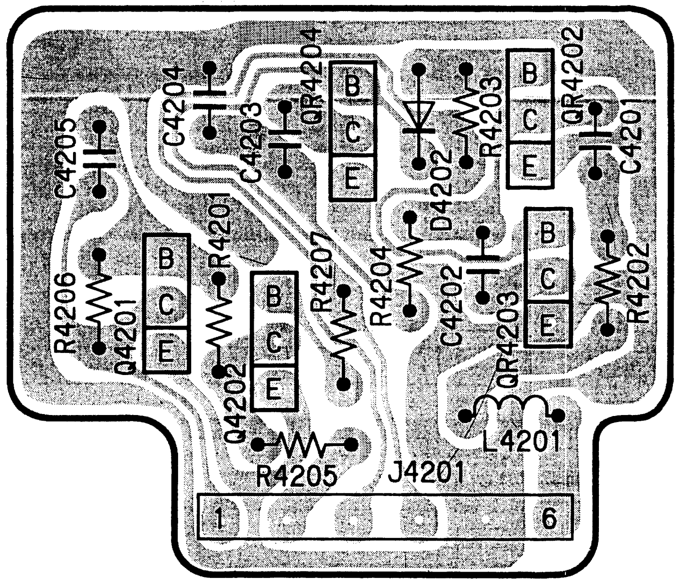

QR4751
B
C
E
C4751
R4752
1
6
R4708
R4712
C4703
R4701
R4706
R4707
R4702
Q4702
R4711
R4705
C4706
R4709
R4704
Q4701
R4710
C4701
C4704
C4705
R4703
R4713
R4714
C4702
C4707
REC I
FL4506
R4593
R4592
R4591
VR4503
C4574
J3
R4602
L4501
C4550
R4559
R4558
Q4502
R4556
Q4503
R4555
C4584
C4573
C4572
R4655
C4656
IC4652
C4657
VR4505
MUT
C4658
R4656
L4504
L4651
R4654
L4506
IC4651
C4654
C4659
FL4651
C4655
C4651
C4653
R4653
C4652
C4589
R4569
R4570
FL4652
P4502
C4581
C4582
C4585
R4651
FL4653
R4652
R4545
C4586
R4565
R4566
C4587
IC4503
QR4508
C4580
D4502
C4576
C4577
C4578
R4562
C4579
R4563
R4564
QR4507
C4583
L4505
R4599
D4503
D4512
P4501
R4578
R4600
R4670
RCH f0
VR4509
C4548
R4539
C4553
C4552
C4562
C4563
Q4501
C4551
C4549
R4537
R4538
R4536
C4543
C4547
IC4502
R4544
C4600
R4671
C4564
C4566
C4561
R4541
R4542
R4540
C4557
C4558
R4543
R4589
C4567
VR4501
LCH f0
D4509
C4663
D4506
D4511
J1
J2
P4504
C4544
C4545
VR4508
RCH fB
R4535
QR4652
C4546
C4554
VR4504
RCH PB
R4596
C4556
C4555
C4559
C4560
R4504
R4590
C4541
C4540
R4534
R4595
C4538
R4588
R4517
D4501
C4539
R4516
C4519
R4594
C4599
R4577
D4508
R4579
C4662
C4598
R4669
R4597
R4511
R4510
R4509
R4503
C4515
R4513
C4514
C4513
R4508
C4565
C4516
R4512
R4515
R4514
C4518
C4517
R4507
C4530
C4512
C4507
R4519
C4542
C4521
R4532
C4536
C4537
VR4502
LCH DEV
R4533
QR4510
D4505
QR4511
D4513
QR4509
R4584
R4585
C4597
C4596
C4594
R4587
RCH DEV
VR4507
C4511
R4502
C4505
R4501
C4501
FL4501
C4502
D4651
QR4651
R4660
R4658
R4668
C4510
C4506
QR4501
R4667
C4508
C4661
IC4501
Q4652
R4505
R4506
R4657
C4509
Q4651
R4659
R4521
R4531
R4529
C4533
R4525
C4532
R4565
C4525
C4522
C4523
C4660
R4530
C4526
R4664
FL4503
C4535
C4534
C4531
C4524
R4598
R4520
QR4503
R4528
R4527
R4526
R4524
R4523
R4522
C4592
C4527
C4593
C4595
C4591
C4590
C4520
R4572
R4575
R4518
Q4504
R4573
Q4505
R4574
D4504
R4576
IC4504
C4603
P4503
C4602
C4605
R4586
R4583
R4582
C4607
C4608
C4606
R4581
R4580
C4604
C4601
E C B
B C E


R.CH DEV
L.CH DEV
R.CH P.B
L.CH P.B
R.CH FO
L.CH FO
IC4501 BA7721S
IC4502 BA7711S
IC4504 BA7056LS
IC4651 TA7302P
IC4652 TA7302P
QR4501 DTC144EA
(MPX Ⓗ:ON)
Q4652 2SD636
(EE AND TUNER Ⓗ :ON)
QR4651 DTA124EA
(EE:ON)
QR4652 DTC124EA
(EE Ⓗ:ON)
QR4503 DTC144EA
(MPX Ⓗ:ON)
Q4651 2SD636
(EE AND TUNER Ⓗ :ON)
FL4501 VLF0520 (20KHzLPF)
FL4503 VLF0520 (20KHzLPF)
Q4504 2SD1330 (MUTING)
Q4505 2SD1330 (MUTING)
QR4509 DTC144EA (INV.)
QR4510 DTA124EA
QR4511 DTC124EA
(A.MUTE Ⓗ/EE Ⓗ/ AUDIO DUB PAUSE Ⓗ:ON)
SUB(1)HI-FI AUDIO PACK C.B.A. (VEP00H59B)
Q4702 2SD636 (AMP)
Q4701 2SD636 (AMP)
SUB(2)HI-FI AUDIO PACK C.B.A. (VEP00L05A)
QR4751 2SD1676 (D.FM REC Ⓗ:ON)
P4501 (TO AUDIO)
P4003 · 1 AUDIO IN (L) 28
P4003 · 2 REG 5.1V 27
P4003 · 3 AUDIO IN (R) 26
P4003 · 4 REG 12.3V 25
P4003 · 5 EE Ⓗ 24
P4003 · 6 AUDIO OUT (N) 23
P4003 · 7 A. DUB PAUSE Ⓗ 22
P4003 · 8 AUDIO OUT (L) 21
P4003 · 9 ENV LEVEL 20
P4003 · 10 AUDIO OUT (R) 19
P4003 · 11 A. MUTE Ⓗ 18
P4003 · 12 D.FM REC Ⓗ 17
P4003 · 13 RFC A. OUT 16
P4003 · 14 INSERT Ⓛ 15
P4003 · 15 H. SW 14
P4003 · 16 E. REC 5V 13
P4003 · 17 X 2 Ⓗ 12
P4003 · 18 AUDIO MOD SEL 11
P4003 · 19 AGC Ⓗ 10
P4003 · 20 GND 9
P4003 · 21 METER OUT (L) 8
P4003 · 22 METER OUT (R) 7
P4003 · 23 H. SW SHIFT 6
P4003 · 24 R.CH Ⓛ 5
P4003 · 25 L.CH Ⓛ 4
P4003 · 26 ENV OUT 3
P4003 · 27 A. H SW 2
P4003 · 28 S-VHS TAPE Ⓛ 1
P4503 (TO OPERATION)
P6503 · 1 H P OUT (L) 1
P6503 · 2 H P OUT (R) 2
P6503 · 3 MPX Ⓗ 3
P6503 · 4 TUNER Ⓗ 4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE ME
DC VOL

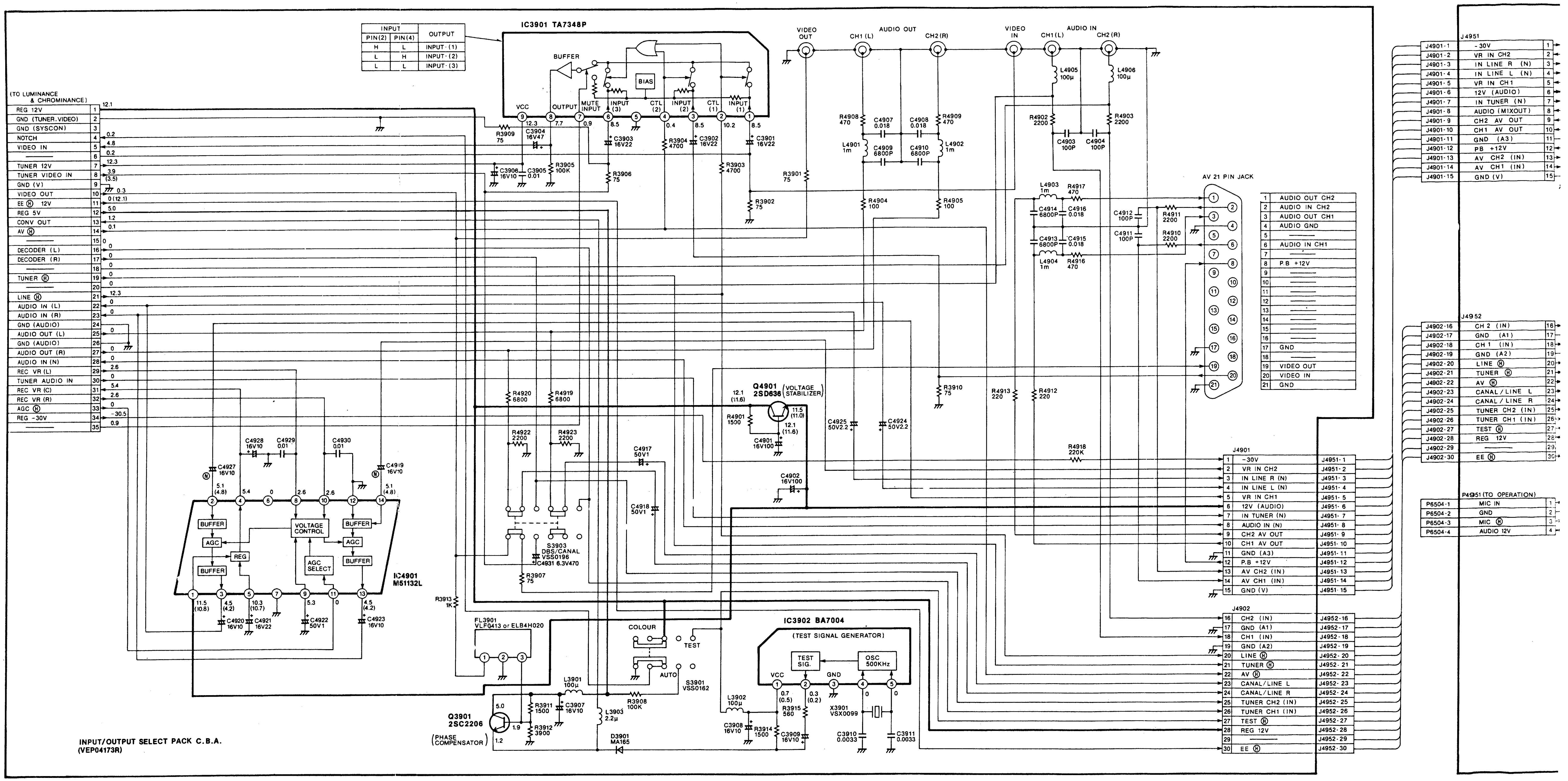

IC4502
BA7711S
IC4503
AN3920K
IC4652
TA7302P
IC4651
TA7302P
Q4501
2SD638
(VOLTAGE STABILIZER)
Q4502
2SB641
(REC AMP)
Q4503
2SD638
(REC AMP)
QR4507
DTC124EA
(E-E Ⓗ:ON)
QR4508
DTC114EA
(A.MUTE Ⓗ/ E-E Ⓗ/ AUDIO DUB PAUSE Ⓗ : ON)
D4502
MA154WK
FL4506
VLF0442
(2.0MHz LPF)
FL4651
VLF0444 or VLF0443
(1.4MHz BPF)
FL4652
VLF0446 or VLF0445
(1.8MHz BPF)
FL4653
VLF0441
(1.6MHz BPF)
SUB(1)HI-FI AUDIO PACK C.B.A.
(VEP00H59B)
Q4702
2SD636
(AMP)
Q4701
2SD636
(AMP)
SUB(2)HI-FI AUDIO PACK C.B.A.
(VEP00L05A)
QR4751
2SD1678
(D.FM REC Ⓗ:ON)
(TO AUDIO) P4504
GND 1 P4004·1
GND 2 P4004·2
(TO HEAD AMP) P4502
GND 1 P502·6
RF OUT (R) 2 P502·8
RF OUT (L) 3 P502·7
REC IN 4 P502·9
R.CH P.B
R.CH FO
L.CH P.B
L.CH FO
REC I
MUTE
P/R
HOLD
LIM
VCO
P.B.
M.M.
DOC
BIAS
GND
VCC
MM1
MM2
SW
VAR
OR
DOC
PUTE LINER
ENV AMP
±6dB


C4205
C4204
C4203
QR4204
D4202
R4203
QR4202
C4201
R4206
Q4201
R4201
R4207
R4204
C4202
QR4203
R4202
Q4202
R4205
L4201
J4201
1
6
B
C
E

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

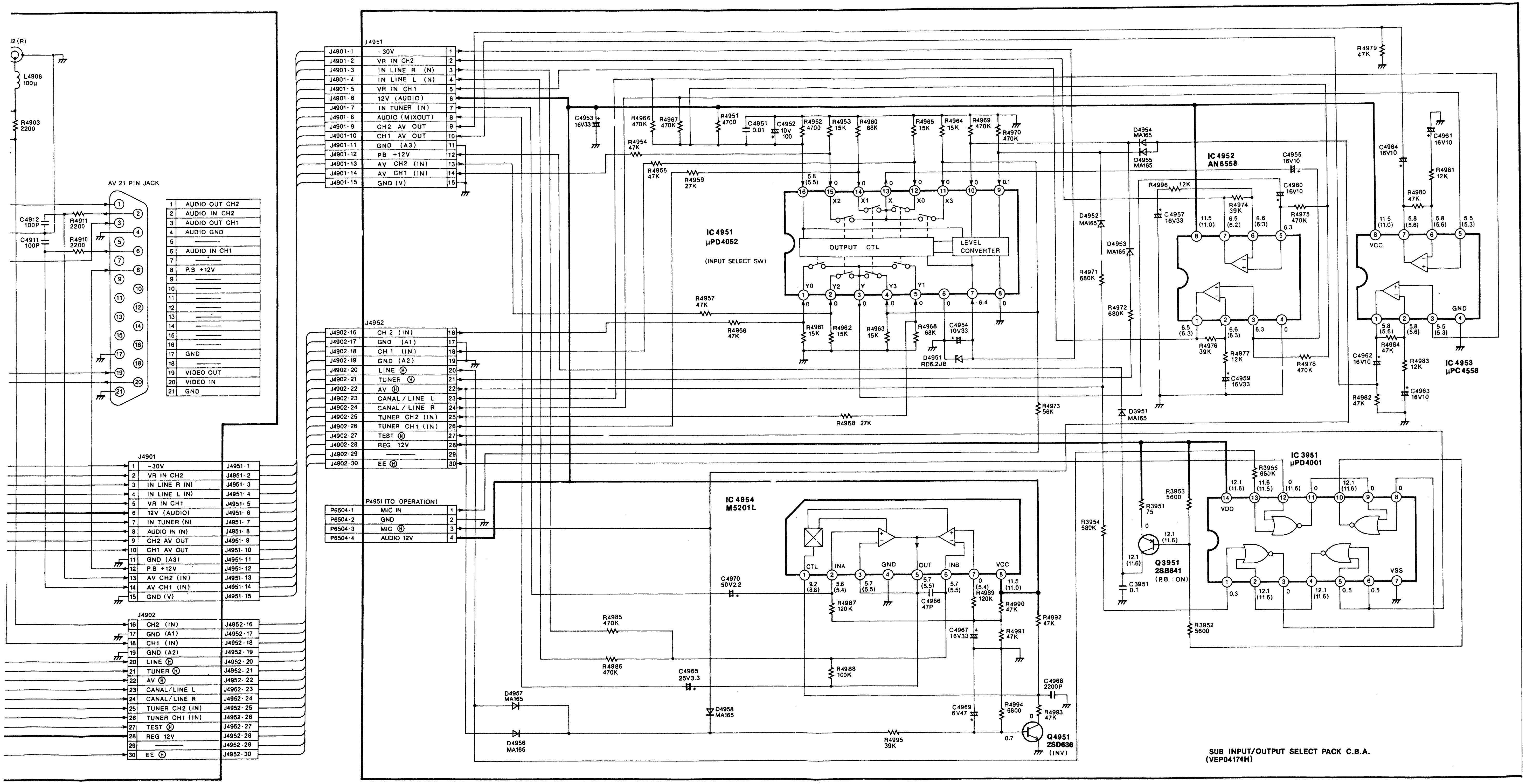
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION.

- LINE IN SIGNAL LEVEL...−10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS ( )
  PLAY...WITHOUT BRACKETS
  (S-VHS: SP MODE)


IC3901 TA7348P
BUFFER
BIAS
VCC
OUTPUT
MUTE INPUT
INPUT (3)
CTL (2)
INPUT (2)
CTL (1)
INPUT (1)
VIDEO OUT
AUDIO OUT
CH1 (L)
CH2 (R)
VIDEO IN
AUDIO IN
CH1 (L)
CH2 (R)
AV 21 PIN JACK
(TO LUMINANCE & CHROMINANCE)
1 REG 12V
2 GND (TUNER, VIDEO)
3 GND (SYSCON)
4 NOTCH
5 VIDEO IN
7 TUNER 12V
8 TUNER VIDEO IN
9 GND (V)
10 VIDEO OUT
11 EE Ⓗ 12V
12 REG 5V
13 CONV OUT
14 AV Ⓗ
16 DECODER (L)
17 DECODER (R)
19 TUNER Ⓗ
21 LINE Ⓗ
22 AUDIO IN (L)
23 AUDIO IN (R)
24 GND (AUDIO)
25 AUDIO OUT (L)
26 GND (AUDIO)
27 AUDIO OUT (R)
28 AUDIO IN (N)
29 REC VR (L)
30 TUNER AUDIO IN
31 REC VR (C)
32 REC VR (R)
33 AGC Ⓗ
34 REG -30V
IC4901 M51132L
BUFFER
AGC
REG
VOLTAGE CONTROL
AGC SELECT
Q4901 2SD636 (VOLTAGE STABILIZER)
S3903 DBS/CANAL VSS0196
FL3901 VLF0413 or ELB4H020
COLOUR
TEST
AUTO
S3901 VSS0162
IC3902 BA7004
(TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
VCC
GND
X3901 VSX0099
Q3901 2SC2206 (PHASE COMPENSATOR)
D3901 MA165
1 AUDIO OUT CH2
2 AUDIO IN CH2
3 AUDIO OUT CH1
4 AUDIO GND
6 AUDIO IN CH1
8 P.B +12V
17 GND
19 VIDEO OUT
20 VIDEO IN
21 GND
J4901
1 -30V
2 VR IN CH2
3 IN LINE R (N)
4 IN LINE L (N)
5 VR IN CH1
6 12V (AUDIO)
7 IN TUNER (N)
8 AUDIO IN (N)
9 CH2 AV OUT
10 CH1 AV OUT
11 GND (A3)
12 P.B +12V
13 AV CH2 (IN)
14 AV CH1 (IN)
15 GND (V)
J4902
16 CH2 (IN)
17 GND (A1)
18 CH1 (IN)
19 GND (A2)
20 LINE Ⓗ
21 TUNER Ⓗ
22 AV Ⓗ
23 CANAL/LINE L
24 CANAL/LINE R
25 TUNER CH2 (IN)
26 TUNER CH1 (IN)
27 TEST Ⓗ
28 REG 12V
30 EE Ⓗ
J4951
J4901-1 -30V
J4901-2 VR IN CH2
J4901-3 IN LINE R (N)
J4901-4 IN LINE L (N)
J4901-5 VR IN CH1
J4901-6 12V (AUDIO)
J4901-7 IN TUNER (N)
J4901-8 AUDIO (MIXOUT)
J4901-9 CH2 AV OUT
J4901-10 CH1 AV OUT
J4901-11 GND (A3)
J4901-12 PB +12V
J4901-13 AV CH2 (IN)
J4901-14 AV CH1 (IN)
J4901-15 GND (V)
J4952
J4902-16 CH 2 (IN)
J4902-17 GND (A1)
J4902-18 CH 1 (IN)
J4902-19 GND (A2)
J4902-20 LINE Ⓗ
J4902-21 TUNER Ⓗ
J4902-22 AV Ⓗ
J4902-23 CANAL/LINE L
J4902-24 CANAL/LINE R
J4902-25 TUNER CH2 (IN)
J4902-26 TUNER CH1 (IN)
J4902-27 TEST Ⓗ
J4902-28 REG 12V
J4902-30 EE Ⓗ
P4951 (TO OPERATION)
P6504-1 MIC IN
P6504-2 GND
P6504-3 MIC Ⓗ
P6504-4 AUDIO 12V

INPUT PIN(2)	INPUT PIN(4)	OUTPUT
H	L	INPUT-(1)
L	H	INPUT-(2)
L	L	INPUT-(3)

INPUT/OUTPUT SELECT PACK C.B.A.
(VEP04173R)


AV 21 PIN JACK
AUDIO OUT CH2
AUDIO IN CH2
AUDIO OUT CH1
AUDIO GND
AUDIO IN CH1
P.B +12V
GND
VIDEO OUT
VIDEO IN
J4901
J4902
J4951
J4952
-30V
VR IN CH2
IN LINE R (N)
IN LINE L (N)
VR IN CH1
12V (AUDIO)
IN TUNER (N)
AUDIO (MIXOUT)
CH2 AV OUT
CH1 AV OUT
GND (A3)
PB +12V
AV CH2 (IN)
AV CH1 (IN)
GND (V)
CH 2 (IN)
GND (A1)
CH 1 (IN)
GND (A2)
LINE Ⓗ
TUNER Ⓗ
AV Ⓗ
CANAL / LINE L
CANAL / LINE R
TUNER CH2 (IN)
TUNER CH1 (IN)
TEST Ⓗ
REG 12V
EE Ⓗ
P4951 (TO OPERATION)
P6504-1
P6504-2
P6504-3
P6504-4
MIC IN
GND
MIC Ⓗ
AUDIO 12V
IC4951
μPD4052
(INPUT SELECT SW)
OUTPUT CTL
LEVEL CONVERTER
IC4952
AN6558
IC4953
μPC4558
IC4954
M5201L
IC 3951
μPD4001
Q3951
2SB641
(P.B. : ON)
Q4951
2SD636
(INV)
VCC
VDD
VSS
GND
L4906 100μ
R4903 2200
C4912 100P
C4911 100P
R4911 2200
R4910 2200
R4979 47K
C4953 16V33
R4966 470K
R4967 470K
R4954 47K
R4955 47K
R4959 27K
R4951 4700
C4951 0.01
C4952 10V 100
R4952 4700
R4953 15K
R4960 68K
R4965 15K
R4964 15K
R4969 470K
R4970 470K
R4957 47K
R4956 47K
R4961 15K
R4962 15K
R4963 15K
R4968 68K
C4954 10V33
D4951 RD6.2JB
R4958 27K
R4973 56K
D4954 MA165
D4955 MA165
D4952 MA165
D4953 MA165
R4971 680K
R4972 680K
D3951 MA165
R4996 12K
C4957 16V33
R4974 39K
R4975 470K
C4955 16V10
C4960 16V10
R4976 39K
R4977 12K
C4959 16V33
R4978 470K
C4964 16V10
C4961 16V10
R4981 12K
R4980 47K
R4984 47K
R4983 12K
C4962 16V10
C4963 16V10
R4982 47K
R3955 680K
R3953 5600
R3951 75
R3954 680K
C3951 0.1
R3952 5600
C4970 50V2.2
R4987 120K
C4966 47P
R4989 120K
R4990 47K
R4992 47K
C4967 16V33
R4991 47K
R4985 470K
R4986 470K
C4965 25V3.3
R4988 100K
C4968 2200P
D4957 MA165
D4958 MA165
D4956 MA165
C4969 6V47
R4994 6800
R4993 47K
R4995 39K
SUB INPUT/OUTPUT SELECT PACK C.B.A.
(VEP04174H)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

Main circuit board assembly

X271	4822 242 72473	CRYSTAL OSC.
X272	4822 242 72475	CRYSTAL OSC.
X301	4822 242 72475	CRYSTAL OSC.
X3901	4822 242 70865	CRYSTAL OSC.
X6001	4822 242 72472	CRYSTAL OSC.
X7504	4822 242 72471	CRYSTAL OSC.
X801	4822 242 72474	CRYSTAL OSC.

BP2001	4822 265 30692	CONNECTOR
BP3001	4822 265 40841	CONNECTOR
BP3002	4822 265 30692	CONNECTOR
BP4951	4822 265 30691	CONNECTOR
BP6001	4822 265 40843	CONNECTOR
BP6004	4822 265 30691	CONNECTOR
BP7301	4822 265 30691	CONNECTOR
BP7303	4822 265 40842	CONNECTOR
BP7401	4822 265 40842	CONNECTOR
BP7402	4822 265 30693	CONNECTOR
BP7405	4822 265 30693	CONNECTOR
P002	4822 267 40838	CONNECTOR
P1101	4822 267 40836	CONNECTOR
P1101	4822 265 30687	CONNECTOR 3P
P1202	4822 267 31054	CONNECTOR
P1504	4822 265 40836	CONNECTOR
P2002	4822 265 40845	CONNECTOR
P201	4822 267 50905	CONNECTOR
P271	4822 265 30694	CONNECTOR
P2801	4822 265 30387	CONNECTOR 4P
P2801	4822 267 40838	CONNECTOR
P2901	4822 267 50897	CONNECTOR
P3003	4822 265 40839	CONNECTOR 10P
P3003	4822 265 40839	CONNECTOR
P3004	4822 265 30429	CONNECTOR 3P
P3004	4822 267 40835	CONNECTOR
P3006	4822 267 50902	CONNECTOR
P3006	4822 265 40838	CONNECTOR 9P
P302	4822 265 30688	CONNECTOR 6P
P302	4822 267 40839	CONNECTOR
P3101	4822 267 40839	CONNECTOR
P3401	4822 267 40839	CONNECTOR
P3403	4822 267 50901	CONNECTOR
P3404	4822 267 40838	CONNECTOR
P3407	4822 267 40836	CONNECTOR
P3702	4822 267 40835	CONNECTOR
P3801	4822 267 40841	CONNECTOR
P3803	4822 267 40839	CONNECTOR
P3805	4822 267 40837	CONNECTOR
P4001	4822 265 30689	CONNECTOR 6P
P4003	4822 267 60259	CONNECTOR
P4004	4822 267 31053	CONNECTOR
P4004	4822 267 30572	CONNECTOR 2P
P4502	4822 267 40838	CONNECTOR
P4504	4822 267 31053	CONNECTOR
P4951	4822 267 40834	CONNECTOR
P501	4822 267 50901	CONNECTOR
P502	4822 267 50902	CONNECTOR
P6002	4822 267 40842	CONNECTOR
P6003	4822 265 40844	CONNECTOR
P6005	4822 267 30572	CONNECTOR 2P
P6006	4822 267 40841	CONNECTOR
P6006	4822 265 30689	CONNECTOR 6P
P6007	4822 265 30689	CONNECTOR 6P
P6008	4822 265 30688	CONNECTOR 6P
P6008	4822 267 40839	CONNECTOR
P701	4822 267 40838	CONNECTOR

P703	4822 267 50903	CONNECTOR
P7302	4822 267 50906	CONNECTOR
P7403	4822 265 40837	CONNECTOR 7P
P7404	4822 267 50904	CONNECTOR
P7503	4822 267 50903	CONNECTOR
P7504	4822 267 50898	CONNECTOR
P7801	4822 267 50899	CONNECTOR
S3901	4822 276 12566	

S3903	4822 276 12567	SWITCH

C202	4822 124 21561	E.CAP. 50V 0.47 µF
C203	4822 122 32646	CHIP 50V 5600P
C204	4822 124 22829	E.CAP. 16V 10 µF
C205	4822 121 90054	S.CAP 16V 0.047 µF
C206	4822 124 21533	E.CAP 16V 16 µF
C207	4822 124 21533	E.CAP 16V 16 µF
C208	4822 124 21524	E.CAP 50V 1 µF
C209	4822 124 21524	E.CAP 50V 1 µF
C210	4822 124 21532	E.CAP 6.3V 33 µF
C212	4822 121 42179	P.CAP 50V 0.1 µF
C213	4822 121 42183	P.CAP 50V 0.068 µF
C214	4822 122 33905	CHIP 50V 1000P
C215	4822 124 22834	E.CAP 50V 0.33 µF
C216	4822 121 42179	P.CAP 50V 0.1 µF
C217	4822 124 21561	E.CAP 50V 0.47 µF
C218	4822 122 32642	CHIP 50V 4700P
C219	4822 121 42269	P.CAP 50V 0.33 µF
C221	4822 121 42179	P.CAP 50V 0.1 µF
C222	4822 122 32646	CHIP 50V 5600P
C223	4822 121 42257	P.CAP 50V 0.022 µF
C224	4822 124 21513	E.CAP 6.3V 47 µF
C225	4822 124 21513	E.CAP 6.3V 47 µF
C226	4822 122 33905	CHIP 50V 1000P
C227	4822 122 33771	CHIP 50V 3300P
C229	4822 121 51445	P.CAP 50V 2700P
C230	4822 124 21567	E.CAP 16V 10 µF
C231	4822 124 40839	E.CAP 50V 1 µF
C232	4822 124 21533	E.CAP 16V 10 µF
C234	4822 122 33905	CHIP 50V 1000P
C237	4822 121 51447	P.CAP 50V 5600P
C238	4822 124 22821	E.CAP 6.3V 100 µF
C239	4822 124 41004	E.CAP 6.3V 220 µF
C240	4822 124 22835	E.CAP 16V 10 µF
C241	4822 124 21513	E.CAP 6.3V 47 µF
C242	4822 122 33747	CHIP 50V 0.01 µF
C243	4822 122 33747	CHIP 50V 0.01 µF
C244	4822 124 40836	E.CAP 25V 4.7 µF
C245	4822 122 32646	CHIP 50V 5600P
C246	4822 121 42179	P.CAP 50V 0.1 µF
C247	4822 124 21533	E.CAP 16V 10 µF
C248	4822 122 33905	CHIP 50V 1000P
C254	4822 121 90054	S.CAP 16V 0.047 µF
C255	4822 122 32462	C.CAP 50V 3300P
C258	4822 122 33747	CHIP 50V 0.01 µF
C261	4822 122 33747	CHIP 50V 0.01 µF
C262	4822 121 42179	P.CAP 50V 0.1 µF
C271	4822 124 21513	E.CAP 6.3V 47 µF
C281	4822 122 33747	CHIP 50V 0.01 µF
C282	4822 122 33747	CHIP 50V 0.01 µF
C284	4822 122 33907	CHIP 50V 22P

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C285	4822 122 33907	CHIP 50V 22P
C286	4822 122 33906	CHIP 50V 18P
C287	4822 122 33906	CHIP 50V 18P
C301	4822 124 21522	E.CAP 25V 2.2 µF
C302	4822 124 41128	E.CAP 6.3V 22 µF
C303	4822 122 33731	CHIP 25V 0.1 µF
C304	4822 124 22822	E.CAP 6.3V 330 µF
C305	4822 124 21533	E.CAP 16V 10 µF
C306	4822 124 40836	E.CAP 25V 4.7 µF
C307	4822 122 32638	CHIP 50V 47P
C308	4822 122 33907	CHIP 50V 22P
C310	4822 124 21533	E.CAP 16V 10 µF
C311	4822 122 33906	CHIP 50V 18P
C312	4822 122 33906	CHIP 50V 18P
C313	4822 124 21533	E.CAP 16V 10 µF
C314	4822 122 33914	CHIP 50V 56P
C315	4822 122 33912	CHIP 50V 39P
C316	4822 122 32652	CHIP 50V 82P
C317	4822 124 22825	E.CAP 10V 47 µF
C321	4822 124 40839	E.CAP 50V 1 µF
C322	4822 124 21536	E.CAP 50V 2.2 µF
C324	4822 124 21533	E.CAP 16V 10 µF
C325	4822 122 33747	CHIP 50V 0.01 µF
C326	4822 122 33747	CHIP 50V 0.01 µF
C327	4822 124 21533	E.CAP 16V 10 µF
C328	4822 124 21533	E.CAP 16V 10 µF
C329	4822 122 33747	CHIP 50V 0.01 µF
C331	4822 122 33747	CHIP 50V 0.01 µF
C332	4822 121 42269	P.CAP 50V 0.33 µF
C333	4822 124 40836	E.CAP 25V 4.7 µF
C334	4822 122 33747	CHIP 50V 0.01 µF
C335	4822 122 32647	CHIP 50V 68P
C336	4822 122 33904	CHIP 50V 100P
C337	4822 122 33908	CHIP 50V 27P
C338	4822 122 33731	CHIP 25V 0.1 µF
C339	4822 122 32647	CHIP 50V 68P
C340	4822 124 40836	E.CAP 25V 4.7 µF
C341	4822 122 33911	CHIP 50V 330P
C342	4822 124 21533	E.CAP 16V 10 µF
C343	4822 124 21533	E.CAP 16V 10 µF
C345	4822 122 33747	CHIP 50V 0.01 µF
C346	4822 122 33902	C.CAP 25V 0-012 µF
C347	4822 124 21533	E.CAP 16V 10 µF
C349	4822 122 32638	CHIP 50V 47P
C351	4822 122 32216	C.CAP 50V 22P
C352	4822 121 51447	P.CAP 50V 5600P
C353	4822 122 33909	CHIP 50V 33P
C354	4822 122 33731	CHIP 25V 0.1 µF
C355	4822 124 21533	E.CAP 16V 10 µF
C360	4822 121 51443	P.CAP 50V 0.015 µF
C362	4822 122 32308	C.CAP 50V 330P
C801	4822 122 33747	CHIP 50V 0.01 µF
C802	4822 122 33747	CHIP 50V 0.01 µF
C803	4822 124 21513	E.CAP 6.3V 47 µF
C804	4822 122 33747	CHIP 50V 0.01 µF
C805	4822 122 33747	CHIP 50V 0.01 µF
C806	4822 122 33913	CHIP 50V 470P
C807	4822 122 33747	CHIP 50V 0.01 µF
C808	4822 122 33914	CHIP 50V 56P
C809	4822 122 33747	CHIP 50V 0.01 µF
C810	4822 122 33747	CHIP 50V 0.01 µF
C811	4822 122 33906	CHIP 50V 18P
C812	4822 122 33747	CHIP 50V 0.01 µF
C813	4822 122 33909	CHIP 50V 33P
C814	4822 124 21564	E.CAP 10V 100 µF
C815	4822 121 42164	P.CAP 50V 0.15 µF
C817	4822 121 42268	P.CAP 50V 0.12 µF
C818	4822 122 33913	CHIP 50V 470P

C819	4822 122 32652	CHIP 50V 82P
C820	4822 124 21536	E.CAP 50V 2.2 µF
C821	4822 124 22832	E.CAP 50V 4.7 µF
C823	4822 124 21536	E.CAP 50V 2.2 µF
C824	4822 124 40839	E.CAP 50V 1 µF
C825	4822 122 33904	CHIP 50V 100P
C826	4822 124 21555	E.CAP 10V 220 µF
C827	4822 122 33903	C.CAP 50V 5P
C828	4822 122 33905	CHIP 50V 1000P
C829	4822 121 51449	P.CAP 50V 0.47 µF
C830	4822 124 40836	E.CAP 25V 4.7 µF
C831	4822 122 33731	CHIP 25V 0.1 µF
C832	4822 122 33731	CHIP 25V 0.1 µF
C833	4822 122 33747	CHIP 50V 0.01 µF
C851	4822 122 32247	C.CAP 50V 0.01 µF
C852	4822 124 22827	E.CAP 16V 33 µF
C853	4822 124 21573	E.CAP 10V 47 µF
C854	4822 121 42271	P.CAP 50V 0-056 µF
C855	4822 124 22827	E.CAP 16V 33 µF
C856	4822 122 32247	C.CAP 50V 0.01 µF
C858	4822 122 32205	C.CAP 50V 680P
C859	4822 122 32301	C.CAP 50V 47P
C1101	4822 124 22822	E.CAP 6.3V 330 µF
C1102	4822 124 22822	E.CAP 6.3V 330 µF
C1103	4822 124 22822	E.CAP 6.3V 330 µF
C1104	4822 124 21556	E.CAP 16V 100 µF
C1105	4822 124 40833	E.CAP 25V 10 µF
C1106	4822 124 40822	E.CAP 16V 100 µF
C1107	4822 121 42179	P.CAP 50V 0.1 µF
C1108	4822 124 21555	E.CAP 10V 220 µF
C1109	4822 124 21533	E.CAP 16V 10 µF
C2001	4822 121 42262	P.CAP 50V 0.033 µF
C2002	4822 121 42262	P.CAP 50V 0.033 µF
C2003	4822 121 42262	P.CAP 50V 0.033 µF
C2004	4822 124 21536	E.CAP 50V 2.2 µF
C2005	4822 124 21536	E.CAP 50V 2.2 µF
C2006	4822 124 21536	E.CAP 50V 2.2 µF
C2007	4822 121 42257	P.CAP 50V 0.022 µF
C2008	4822 121 42179	P.CAP 50V 0.1 µF
C2011	4822 124 21556	E.CAP 16V 100 µF
C2012	4822 121 42369	P.CAP 50V 3300P
C2013	4822 121 42369	P.CAP 50V 3300P
C2014	4822 121 42369	P.CAP 50V 3300P
C2016	4822 124 22831	E.CAP 25V 220 µF
C2017	4822 124 22828	E.CAP 16V 47 µF
C2018	4822 121 42179	P.CAP 50V 0.1 µF
C2019	4822 121 42179	P.CAP 50V 0.1 µF
C2020	4822 121 42179	P.CAP 50V 0.1 µF
C2021	4822 122 32247	C.CAP 50V 0.01 µF
C2022	4822 121 42166	P.CAP 50V 0.27 µF
C2023	4822 121 51449	P.CAP 50V 0.47 µF
C2801	4822 124 40839	E.CAP 50V 1 µF
C2802	4822 121 42257	P.CAP 50V 0.022 µF
C2803	4822 124 21513	E.CAP 6.3V 47 µF
C2804	4822 122 32234	C.CAP 50V 1800P
C2805	4822 124 21524	E.CAP 50V 1 µF
C2806	4822 122 32216	C.CAP 50V 22P
C2807	4822 124 21513	E.CAP 6.3V 47 µF
C2808	4822 121 42268	P.CAP 50V 0.12 µF
C2809	4822 124 40836	E.CAP 25V 4.7 µF
C2810	4822 124 21533	E.CAP 16V 10 µF
C2811	4822 124 40834	E.CAP 25V 3.3 µF
C2812	4822 121 42165	P.CAP 50V 0.22 µF
C2813	4822 121 42165	P.CAP 50V 0.22 µF
C2814	4822 121 42146	P.CAP 50V 0.01 µF
C2815	4822 124 21513	E.CAP 0.3V 47 µF
C2816	4822 121 42165	P.CAP 50V 0.22 µF
C3001	4822 122 32247	C.CAP 50V 0.01 µF
C3004	4822 124 41128	E.CAP 6.3V 22 µF
C3005	4822 124 21533	E.CAP 16V 10 µF

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C3006	4822 124 21513	E.CAP 6.3V 47 µF
C3013	4822 124 21524	E.CAP 50V 1 µF
C3014	4822 122 32247	C.CAP 50V 0.01 µF
C3015	4822 124 40839	E.CAP 50V 1 µF
C3016	4822 124 40839	E.CAP 50V 1 µF
C3018	4822 121 42179	P.CAP 50V 0.1 µF
C3020	4822 121 42179	P.CAP 50V 0.1 µF
C3022	4822 121 90053	S.CAP 16V 0.1 µF
C3026	4822 122 32247	C.CAP 50V 0.01 µF
C3027	4822 124 21532	E.CAP 6.3V 33 µF
C3028	4822 121 51444	P.CAP 50V 0.015 µF
C3029	4822 122 32249	C.CAP 50V 2700P
C3030	4822 122 32247	C.CAP 50V 0.01 µF
C3031	4822 122 32233	C.CAP 50V 150P
C3032	4822 124 40839	E.CAP 50V 1 µF
C3033	4822 124 22823	.CAP V
C3601	4822 124 21533	E.CAP 16V 10 µF
C3602	4822 124 22825	E.CAP 10V 47 µF
C3603	4822 124 22825	E.CAP 10V 47 µF
C3604	4822 124 22825	E.CAP 10V 47 µF
C3605	4822 124 22825	E.CAP 10V 47 µF
C3606	4822 121 42168	P.CAP 50V 0.047 µF
C3901	4822 124 40819	E.CAP 16V 22 µF
C3902	4822 124 40819	E.CAP 16V 22 µF
C3903	4822 124 40819	E.CAP 16V 22 µF
C3904	4822 124 22828	E.CAP 16V 47 µF
C3905	4822 122 32247	C.CAP 50V 0.01 µF
C3906	4822 124 21533	E.CAP 16V 10 µF
C3907	4822 124 21533	E.CAP 16V 10 µF
C3908	4822 124 21533	E.CAP 16V 10 µF
C3910	4822 121 90055	S.CAP 25V 3300P
C3911	4822 121 90055	S.CAP 25V 3300P
C3951	4822 121 42179	P.CAP 50V 0.1 µF
C4001	4822 121 42253	P.CAP 50V 1500P
C4003	4822 124 22827	E.CAP 16V 33 µF
C4004	4822 124 40839	E.CAP 50V 1 µF
C4005	4822 124 21515	E.CAP 10V 33 µF
C4006	4822 124 21533	E.CAP 16V 10 µF
C4007	4822 124 22826	E.CAP 16V 10 µF
C4008	4822 122 32239	C.CAP 50V 820P
C4009	4822 122 32197	C.CAP 50V 1000P
C4010	4822 121 42297	P.CAP 50V 0.012 µF
C4011	4822 124 22826	E.CAP 16V 10 µF
C4012	4822 124 40839	E.CAP 50V 1 µF
C4013	4822 124 22824	E.CAP 10V 22 µF
C4014	4822 124 21564	E.CAP 10V 100 µF
C4015	4822 124 21533	E.CAP 16V 10 µF
C4016	4822 124 21533	E.CAP 16V 10 µF
C4019	4822 121 42148	P.CAP 50V 0.027 µF
C4020	4822 124 21533	E.CAP 16V 10 µF
C4021	4822 122 32236	C.CAP 50V 470P
C4023	4822 124 21517	E.CAP 16V 47 µF
C4024	4822 121 51448	P.CAP 0.0022 µF
C4026	4822 124 21574	E.CAP 16V 47 µF
C4027	4822 122 33901	C.CAP 500V 120P
C4028	4822 124 40834	E.CAP 25V 3.3 µF
C4029	4822 124 21556	E.CAP 16V 100 µF
C4030	4822 124 21556	E.CAP 16V 100 µF
C4032	4822 122 32235	C.CAP 50V 270P
C4201	4822 121 51446	P.CAP 50V 0.039 µF
C4202	4822 121 42271	P.CAP 50V 0.056 µF
C4203	4822 121 42254	P.CAP 50V 0.015 µF
C4204	4822 121 42266	P.CAP 50V 8200P
C4205	4822 121 42179	P.CAP 50V 0.1 µF
C4901	4822 124 22841	E.CAP 16V 100 µF
C4902	4822 124 22841	E.CAP 16V 100 µF
C4903	4822 122 32457	C.CAP 50V 100P

C4904	4822 122 32457	C.CAP 50V 100P
C4907	4822 121 42255	P.CAP 50V 0.018 µF
C4908	4822 121 42255	P.CAP 50V 0.018 µF
C4909	4822 121 42264	P.CAP 50V 6800P
C4910	4822 121 42264	P.CAP 50V 6800P
C4911	4822 122 32457	C.CAP 50V 100P
C4912	4822 122 32457	C.CAP 50V 100P
C4913	4822 121 42264	P.CAP 50V 6800P
C4914	4822 121 42264	P.CAP 50V 6800P
C4915	4822 121 42255	P.CAP 50V 0.018 µF
C4916	4822 121 42255	P.CAP 50V 0.018 µF
C4917	4822 124 40839	E.CAP 50V 1 µF
C4918	4822 124 40839	E.CAP 50V 1 µF
C4919	4822 124 22842	E.CAP 16V 10 µF
C4920	4822 124 22839	E.CAP 16V 10 µF
C4921	4822 124 40819	E.CAP 16V 22 µF
C4922	4822 124 40839	E.CAP 50V 1 µF
C4923	4822 124 22839	E.CAP 16V 10 µF
C4924	4822 124 21536	E.CAP 50V 2.2 µF
C4925	4822 124 21536	E.CAP 50V 2.2 µF
C4927	4822 124 22842	E.CAP 16V 10 µF
C4928	4822 124 21533	E.CAP 16V 10 µF
C4929	4822 122 32247	C.CAP 50V 0.01 µF
C4930	4822 122 32247	C.CAP 50V 0.01 µF
C4931	4822 124 22745	E.CAP 6.3V 470 µF
C4951	4822 122 32247	C.CAP 50V 0.01 µF
C4952	4822 124 22837	E.CAP 10V 100 µF
C4953	4822 124 22843	E.CAP 16V 33 µF
C4954	4822 124 22838	E.CAP 10V 33 µF
C4955	4822 124 22839	E.CAP 16V 10 µF
C4957	4822 124 22827	E.CAP 16V 33 µF
C4959	4822 124 22827	E.CAP 16V 33 µF
C4960	4822 124 22839	E.CAP 16V 10 µF
C4961	4822 124 21533	E.CAP 16V 10 µF
C4962	4822 124 21533	E.CAP 16V 10 µF
C4963	4822 124 21533	E.CAP 16V 10 µF
C4964	4822 124 21533	E.CAP 16V 10 µF
C4965	4822 124 40834	E.CAP 25V 3.3 µF
C4966	4822 122 32301	C.CAP 50V 47P
C4967	4822 124 22827	E.CAP 16V 33 µF
C4968	4822 121 42147	P.CAP 50V 2200P
C4969	4822 124 21513	E.CAP 6.3V 47 µF
C4970	4822 124 21536	E.CAP 50V 202 µF
C6001	4822 124 41128	E.CAP 6.3V 22 µF
C6002	4822 121 42179	P.CAP 50V 0.1 µF
C6003	4822 122 32247	C.CAP 50V 0.01 µF
C6006	4822 124 21532	E.CAP 6.3V 33 µF
C6007	4822 121 42179	P.CAP 50V 0.1 µF
C6011	4822 121 42146	P.CAP 50V 0.01 µF
C6012	4822 121 42146	P.CAP 50V 0.01 µF
C6013	4822 124 22827	E.CAP 16V 33 µF
C6016	4822 122 32203	C.CAP 50V 220P
C6017	4822 124 21513	E.CAP 6.3V 47 µF
C6018	4822 124 21513	E.CAP 6.3V 47 µF
C6019	4822 124 21513	E.CAP 6.3V 47 µF
C6020	4822 121 42146	P.CAP 50V 0.01 µF
C6021	4822 122 32247	C.CAP 50V 0.01 µF
C6022	4822 122 32247	C.CAP 50V 0.01 µF
C6023	4822 122 32247	C.CAP 50V 0.01 µF
C6025	4822 122 32235	C.CAP 50V 270P
C6030	4822 124 22822	E.CAP 6.3V 330 µF
C6031	4822 124 21563	E.CAP 16V 10 µF
C7551	4822 121 42179	P.CAP 50V 0.1 µF
C7552	4822 121 42183	P.CAP 50V 0.068 µF
C7553	4822 121 42272	P.CAP 50V 0.082 µF
C7554	4822 121 42148	P.CAP 50V 0.027 µF

C7555	4822 122 32247	C.CAP 50V 0.01 µF
C7556	4822 122 32247	C.CAP 50V 0.01 µF
C7557	4822 124 22833	E.CAP 50V 10 µF
C7558	4822 122 32247	C.CAP 50V 0.01 µF
C7559	4822 124 21533	E.CAP 16V 10 µF
C7560	4822 122 32247	C.CAP 50V 0.01 µF
C7561	4822 122 32247	C.CAP 50V 0.01 µF
C7562	4822 122 32247	C.CAP 50V 0.01 µF
C7563	4822 122 32247	C.CAP 50V 0.01 µF
C7565	4822 122 32247	C.CAP 50V 0.01 µF
C7570	4822 124 21524	E.CAP 50V 1 µF
C7571	4822 124 22836	E.CAP 5.5V 0.047
C7590	4822 124 22745	E.CAP 6.3V 470 µF

D201	4822 130 32868	MA153
D204	4822 130 32868	MA153
D301	4822 130 32889	MA4091
D803	4822 130 32362	MA165
D804	4822 130 32362	MA165
D805	4822 130 32362	MA165
D806	4822 130 32362	MA165
D1102	4822 130 32362	MA165
D1103	4822 130 32362	MA165
D1105	4822 130 32362	MA165
D1106	4822 130 33935	MA4051M
D2001	4822 130 32362	MA165
D2002	4822 130 32362	MA165
D2003	4822 130 32362	MA165
D2004	4822 130 32362	MA165
D2007	4822 130 32362	MA165
D2008	4822 130 32362	MA165
D2009	4822 130 32362	MA165
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D2803	4822 130 32362	MA165
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D3006	4822 130 32362	MA165
D3007	4822 130 32362	MA165
D3008	4822 130 32362	MA165
D3601	4822 130 32362	MA165
D3602	4822 130 32362	MA165
D3901	4822 130 32362	MA165
D3951	4822 130 32362	MA165
D4003	4822 130 32362	MA165
D4004	4822 130 32362	MA165
D4005	4822 130 32362	MA165
D4006	4822 130 32362	MA165
D4007	4822 130 32362	MA165
D4202	4822 130 32362	MA165
D4951	4822 130 81364	RD6.2JB
D4952	4822 130 32362	MA165
D4953	4822 130 32362	MA165
D4954	4822 130 32362	MA165
D4955	4822 130 32362	MA165
D4956	4822 130 32362	MA165
D4957	4822 130 32362	MA165
D4958	4822 130 32362	MA165
D6001	4822 130 81359	ERA15-01
D6003	4822 130 32362	MA165
D6004	4822 130 32362	MA165
D6005	4822 130 32362	MA165
D6009	4822 130 32362	MA165
D6010	4822 130 32362	MA165
D6011	4822 130 32362	MA165
D6012	4822 130 32362	MA165
D6017	4822 130 81359	ERA15-01
D6018	4822 130 81361	MA4056H
D6019	4822 130 81363	MA4140M
D6020	4822 130 81261	MA4110M
D6021	4822 130 32362	MA165
D6022	4822 130 32362	MA165
D6023	4822 130 32362	MA165
D6024	4822 130 32362	MA165
D6028	4822 130 32362	MA165
D6029	4822 130 32362	MA165
D6030	4822 130 81362	MA4056L
D6031	4822 130 32362	MA165
D6032	4822 130 32362	MA165
D6035	4822 130 81365	11ES1
D7550	4822 130 32362	MA165
D7558	4822 130 32362	MA165
D7559	4822 130 32362	MA165
D7560	4822 130 32362	MA165
DL801	4822 320 40202	DELAY
DL802	4822 320 40201	DELAY
FL301	4822 218 30479	FILTER
FL302	4822 218 30482	FILTER
FL303	4822 218 30483	FILTER
FL3901	4822 218 30478	FILTER
FL4001	4822 218 30481	FILTER
FL801	4822 218 20411	FILTER
FL851	4822 218 20447	FILTER

IC201	4822 209 60498	UPD6162AA601
IC202	4822 209 60493	MN15312VPL
IC203	4822 209 60489	LM358P
IC271	4822 209 82574	UPD4069UBC
IC301	4822 209 60499	VEFH03D
IC302	4822 209 60484	AN3494NK
IC303	4822 209 73578	MSM6965-3RS
IC801	4822 209 60501	VEFH04A
IC851	4822 209 82514	BA7025L
IC2001	4822 209 60487	BA6432S
IC2801	4822 209 83524	BA6305
IC2802	4822 209 60495	MN4013B
IC2803	4822 209 82194	AN6914
IC2804	4822 209 82205	UPC358C
IC3601	4822 209 60486	AN6308
IC3901	4822 209 60128	TA7348P
IC3902	4822 209 82197	BA7004
IC3951	4822 209 82327	UPD4001BC
IC4001	4822 209 60488	BA7752LS
IC4901	4822 209 60491	MA51132L
IC4951	4822 209 60497	UPD4052BC
IC4952	4822 209 82509	AN6558
IC4953	4822 209 81444	UPC4558C
IC4954	4822 209 83934	M5201L
IC6001	4822 209 60494	MN15362VBR
IC6002	4822 209 80797	LM393P
IC6003	5322 209 70838	MC14510BCP
IC6004	4822 209 60492	MN1280R
IC7551	4822 209 60485	AN5043
IC7552	4822 209 83009	AN6913
IC7553	4822 209 60496	MN4066B

L271	4822 157 51975	
L301	4822 157 51975	
L302	4822 157 51992	
L303	4822 157 51975	
L304	4822 157 52067	
L305	4822 157 52085	
L306	4822 157 51975	
L309	4822 157 51975	
L310	4822 157 51975	
L801	4822 157 51975	
L802	4822 157 51991	
L803	4822 157 51991	
L804	4822 157 51991	
L805	4822 157 51975	
L806	4822 157 51996	
L808	4822 157 51995	
L809	4822 157 51994	
L810	4822 157 51975	
L811	4822 157 51995	
L812	4822 157 51996	
L851	4822 157 51975	
L2001	4822 157 51979	
L2002	4822 157 53991	
L3002	4822 157 51975	
L3003	4822 157 53994	
L3004	4822 157 53992	
L3901	4822 157 51975	
L3902	4822 157 51975	
L3903	4822 157 51983	
L4001	4822 157 51975	
L4201	4822 157 53993	
L4901	4822 157 51979	
L4902	4822 157 51979	
L4903	4822 157 51979	
L4905	4822 157 51975	
L4906	4822 157 51975	
T4001	4822 146 21423	TRANSFORMER
T851	4822 144 20177	COIL

Q201	4822 130 42669	2SD601
Q202	4822 130 42669	2SD601
Q203	4822 130 42661	2SB709
Q204	4822 130 42661	2SB709
Q205	4822 130 42661	2SB709
Q206	4822 130 42661	2SB709
Q208	4822 130 42669	2SD601
Q301	4822 130 42661	2SB709
Q302	4822 130 61593	2SC2295
Q303	4822 130 61593	2SC2295
Q304	4822 130 42669	2SD601
Q401	4822 130 61592	2SC1318
Q801	4822 130 42669	2SD601
Q802	4822 130 61593	2SC2295
Q804	4822 130 42661	2SB709
Q1102	4822 130 41607	2SD655
Q1103	4822 130 41607	2SD655
Q2001	4822 130 42251	2SB641
Q2002	4822 130 41605	2SD636
Q2801	4822 130 41605	2SD636
Q2802	4822 130 42251	2SB641
Q2803	4822 130 41605	2SD636
Q2804	4822 130 41605	2SD636
Q2805	4822 130 41605	2SD636
Q2806	4822 130 41605	2SD636
Q2807	4822 130 41605	2SD636
Q2808	4822 130 41605	2SD636
Q3003	4822 130 41607	2SD655
Q3005	4822 130 41605	2SD636
Q3006	4822 130 42253	2SC2206
Q3050	4822 130 41605	2SD636
Q3901	4822 130 42253	2SC2206
Q3951	4822 130 61594	2SC641
Q4004	4822 130 41388	2SB642
Q4006	4822 130 41605	2SD636
Q4007	4822 130 61591	2SB643
Q4201	4822 130 41607	2SD655
Q4202	4822 130 41607	2SD655
Q4901	4822 130 61595	2SD1330
Q4951	4822 130 41605	2SD636
Q6007	4822 130 60563	2SB790
Q6008	4822 130 42251	2SB641
Q6009	4822 130 61589	2SA1128
Q6011	4822 130 61589	2SA1128
Q6015	4822 130 41607	2SD655
Q6016	4822 130 61596	2SD1783
Q6017	4822 130 61597	2SD893
Q6018	4822 130 42577	2SD973
Q6019	4822 130 41324	2SD638
Q7002	4822 130 41323	2SD637
Q7003	4822 130 41323	2SD637
Q7553	4822 130 41605	2SD636
QR201	4822 130 60326	DTA144EK
QR202	4822 130 60326	DTA144EK
QR203	4822 111 90814	UN2212
QR301	4822 111 90814	UN2212
QR302	4822 111 90814	UN2212
QR303	4822 111 90814	UN2212
QR304	4822 111 90814	UN2212
QR305	4822 111 90814	UN2212
QR306	4822 111 90814	UN2212
QR801	4822 111 90814	UN2212
QR853	4822 111 91319	UN1213
QR854	4822 130 60259	2SD1676
QR1101	4822 111 91319	UN1213
QR1102	4822 130 60556	UN1211
QR2002	4822 111 91223	UN1212
QR2003	4822 111 91222	UN1112
QR2004	4822 111 91222	UN1112
QR2006	4822 111 91319	UN1213
QR2007	4822 111 91319	UN1213
QR2801	4822 130 61584	DTC144EA
QR2802	4822 130 61584	DTC144EA
QR2803	4822 130 61584	DTC144EA
QR2804	4822 130 61583	DTC114EA
QR3001	4822 130 61585	UN1111
QR3002	4822 111 91223	UN1212
QR3003	4822 111 91318	UN1113
QR3004	4822 130 61587	UN1214
QR3006	4822 111 91319	UN1213
QR3008	4822 130 60259	2SD1676
QR3601	4822 111 91223	UN1212
QR3602	4822 111 91223	UN1212
QR3603	4822 111 91223	UN1212
QR3604	4822 111 91223	UN1212
QR3605	4822 111 91223	UN1212
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QR4003	4822 130 61588	UN1216
QR4004	4822 111 91319	UN1213
QR4202	4822 130 60259	2SD1676
QR4203	4822 130 60259	2SD1676
QR4204	4822 130 60259	2SD1676
QR6001	4822 111 91223	UN1212
QR6004	4822 111 91319	UN1213
QR6005	4822 111 91319	UN1213

QR6006	4822 130 61585	UN1111
QR6008	4822 130 61585	UN1111
QR6010	4822 130 61585	UN1111
QR6011	4822 111 91223	UN1212
QR6012	4822 111 91318	UN1113
QR6013	4822 111 91319	UN1213
QR6014	4822 111 91319	UN1213
QR6015	4822 111 91223	UN1212
QR6016	4822 130 61585	UN1111
QR6199	4822 130 61586	UN1210
QR7556	4822 111 91319	UN1213
QR7557	4822 111 91319	UN1213
QR7558	4822 111 91319	UN1213
QR7559	4822 111 91319	UN1213

R201	4822 116 90445	CHIP 39 kΩ
R202	4822 116 90458	CHIP 1.5 kΩ
R203	4822 116 81117	CHIP 10 kΩ
R204	4822 116 90339	CHIP 220
R205	4822 111 91516	CHIP 1 kΩ
R206	4822 111 91527	CHIP 3.9 kΩ
R207	4822 111 91661	CHIP 47 kΩ
R208	4822 111 91522	CHIP 2.2 kΩ
R209	4822 116 90464	CHIP 6.8 kΩ
R210	4822 116 81403	CHIP 270 kΩ
R211	4822 111 91535	CHIP 56 kΩ
R212	4822 116 90459	CHIP 150 kΩ
R213	4822 116 90459	CHIP 150 kΩ
R214	4822 116 80881	CHIP 220 kΩ
R215	4822 111 91449	CHIP 2.7 kΩ
R216	4822 116 81117	CHIP 10 kΩ
R217	4822 116 90347	CHIP 68 kΩ
R218	4822 116 81017	CHIP 33 kΩ
R219	4822 116 81017	CHIP 33 kΩ
R220	4822 116 81403	CHIP 270 kΩ
R222	4822 111 91526	CHIP 3.3 kΩ
R223	4822 111 91526	CHIP 3.3 kΩ
R224	4822 111 91533	CHIP 560
R225	4822 111 91522	CHIP 2.2 kΩ
R226	4822 111 91516	CHIP 1 kΩ
R227	4822 116 81117	CHIP 10 kΩ
R228	4822 116 90445	CHIP 39 kΩ
R229	4822 116 90339	CHIP 220
R230	4822 116 90458	CHIP 1.5 kΩ
R231	4822 116 90458	CHIP 1.5 kΩ
R232	4822 111 91535	CHIP 56 kΩ
R233	4822 111 91535	CHIP 56 kΩ
R234	4822 111 91532	CHIP 4.7 kΩ
R235	4822 116 81017	CHIP 33 kΩ
R236	4822 116 90459	CHIP 150 kΩ
R237	4822 116 90459	CHIP 150 kΩ
R238	4822 116 90442	CHIP 120 kΩ
R239	4822 111 91527	CHIP 3.9 kΩ
R240	4822 116 81017	CHIP 33 kΩ
R241	4822 116 81032	CHIP 680 kΩ

R242	4822 116 90443	CHIP 180 kΩ
R243	4822 116 90347	CHIP 68 kΩ
R244	4822 111 91523	CHIP 22 kΩ
R245	4822 111 91523	CHIP 22 kΩ
R246	4822 116 81117	CHIP 10 kΩ
R247	4822 111 91527	CHIP 3.9 kΩ
R248	4822 111 91523	CHIP 22 kΩ
R249	4822 111 91532	CHIP 4.7 kΩ
R250	4822 116 81034	CHIP 820
R251	4822 116 90348	CHIP 820 kΩ
R252	4822 111 91661	CHIP 47 kΩ
R253	4822 116 81032	CHIP 680 kΩ
R256	4822 116 81382	CHIP 12 kΩ
R257	4822 111 91535	CHIP 5.6 kΩ
R258	4822 116 90347	CHIP 68 kΩ
R259	4822 111 91523	CHIP 22 kΩ
R260	4822 111 91523	CHIP 22 kΩ
R266	4822 111 91535	CHIP 56 kΩ
R267	4822 111 91535	CHIP 56 kΩ
R268	4822 111 91535	CHIP 5.6 kΩ
R269	4822 111 91535	CHIP 5.6 kΩ
R274	4822 116 81117	CHIP 10 kΩ
R281	4822 111 91651	CHIP 1M
R282	4822 111 91655	CHIP 8.2 kΩ
R283	4822 111 91516	CHIP 1 kΩ
R284	4822 111 91651	CHIP 1M
R285	4822 116 90464	CHIP 6.8 kΩ
R286	4822 111 91522	CHIP 2.2 kΩ
R301	4822 116 80877	CHIP 102 kΩ
R302	4822 116 81029	CHIP 390
R303	4822 116 81117	CHIP 10 kΩ
R304	4822 111 91516	CHIP 1 kΩ
R305	4822 116 90348	CHIP 820 kΩ
R306	4822 116 90458	CHIP 1.5 kΩ
R307	4822 111 91516	CHIP 1 kΩ
R308	4822 116 81382	CHIP 12 kΩ
R309	4822 111 91449	CHIP 2.7 kΩ
R310	4822 116 81117	CHIP 10 kΩ
R311	4822 111 91527	CHIP 3.9 kΩ
R312	4822 111 91532	CHIP 4.7 kΩ
R313	4822 116 81117	CHIP 10 kΩ
R314	4822 116 81117	CHIP 10 kΩ
R316	4822 111 91518	CHIP 100 kΩ
R318	4822 111 91535	CHIP 5.6 kΩ
R319	4822 116 81389	CHIP 82 kΩ
R320	4822 111 91516	CHIP 1 kΩ
R321	4822 111 91516	CHIP 1 kΩ
R322	4822 116 81029	CHIP 390
R323	4822 116 90446	CHIP 470
R324	4822 116 90458	CHIP 1.5 kΩ
R325	4822 116 80879	CHIP 150
R326	4822 111 91655	CHIP 8.2 kΩ
R327	4822 111 91526	CHIP 3.3 kΩ
R328	4822 111 91449	CHIP 2.7 kΩ
R329	4822 116 81117	CHIP 10 kΩ
R330	4822 111 91521	CHIP 180 kΩ
R331	4822 111 91516	CHIP 1 kΩ
R332	4822 111 91522	CHIP 2.2 kΩ
R334	4822 111 91516	CHIP 1 kΩ

R335	4822 111 91516	CHIP 1 kΩ
R338	4822 116 90442	CHIP 120 kΩ
R339	4822 116 81117	CHIP 10 kΩ
R340	4822 111 91516	CHIP 1 kΩ
R341	4822 111 91522	CHIP 2.2 kΩ
R342	4822 111 91523	CHIP 22 kΩ
R801	4822 116 80882	CHIP 270
R802	4822 116 80877	CHIP 102 kΩ
R803	4822 116 81117	CHIP 10 kΩ
R804	4822 116 81117	CHIP 10 kΩ
R805	4822 116 90446	CHIP 470
R806	4822 116 90446	CHIP 470
R807	4822 116 80877	CHIP 1.2 kΩ
R808	4822 116 90463	CHIP 680
R809	4822 116 90458	CHIP 1.5 kΩ
R810	4822 111 91501	CHIP 330
R814	4822 111 91516	CHIP 1 kΩ
R815	4822 116 81117	CHIP 10 kΩ
R816	4822 111 91655	CHIP 8.2 kΩ
R817	4822 111 91516	CHIP 1 kΩ
R818	4822 111 91516	CHIP 1 kΩ
R819	4822 116 81383	CHIP 1.8 kΩ
R820	4822 111 91522	CHIP 2.2 kΩ
R821	4822 116 90342	CHIP 27 kΩ
R822	4822 111 91521	CHIP 180 kΩ
R823	4822 116 80882	CHIP 270
R824	4822 111 91516	CHIP 1 kΩ
R825	4822 116 81383	CHIP 1.8 kΩ
R826	4822 116 52228	C.RES 680
R827	4822 111 91535	CHIP 56 kΩ
R828	4822 111 91521	CHIP 180 kΩ
R829	4822 111 91523	CHIP 22 kΩ
R830	4822 116 81117	CHIP 10 kΩ
R851	4822 116 52257	C.RES 22 kΩ
R852	4822 116 52193	C.RES 39
R853	4822 116 52245	C.RES 150 kΩ
R854	4822 116 52256	C.RES 2.2 kΩ
R855	4822 116 52204	C.RES 1 kΩ
R856	4822 116 52233	C.RES 10 kΩ
R858	4822 116 52226	C.RES 560
R1102	4822 116 52243	C.RES 1.5 kΩ
R1103	4822 116 52204	C.RES 1 kΩ
R1104	4822 116 52233	C.RES 10 kΩ
R1105	4822 116 52226	C.RES 560
R2001	4822 116 52197	C.RES 56
R2002	4822 116 52197	C.RES 56
R2003	4822 116 52197	C.RES 56
R2004	4822 116 81391	M.RES 1/2W 1
R2005	4822 116 52204	C.RES 1 kΩ
R2006	4822 116 81398	M.RES 5.1 kΩ
R2007	4822 116 52283	C.RES 4.7 kΩ
R2008	4822 116 81399	M.RES 6.8 kΩ
R2009	4822 116 81397	M.RES 4.7 kΩ
R2010	4822 116 52257	C.RES 22 kΩ
R2011	4822 116 52204	C.RES 1 kΩ
R2012	4822 116 52233	C.RES 10 kΩ
R2013	4822 116 52256	C.RES 2.2 kΩ
R2014	4822 116 52256	C.RES 2.2 kΩ
R2018	4822 116 52191	C.RES 33
R2029	4822 116 52297	C.RES 68 kΩ
R2030	4822 116 52271	C.RES 33 kΩ
R2031	4822 116 52284	C.RES 47 kΩ
R2032	4822 116 52239	C.RES 120 kΩ
R2033	4822 116 52297	C.RES 68 kΩ

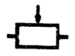
R2034	4822 116 52222	C.RES 390
R2036	4822 116 52233	C.RES 10 kΩ
R2039	4822 116 52284	C.RES 47 kΩ
R2040	4822 116 52234	C.RES 100 kΩ
R2800	4822 116 52234	C.RES 100 kΩ
R2801	4822 116 52233	C.RES 10 kΩ
R2802	4822 116 52233	C.RES 10 kΩ
R2803	4822 116 52226	C.RES 560
R2804	4822 116 52277	C.RES 39 kΩ
R2805	4822 116 52269	C.RES 3.3 kΩ
R2806	4822 116 52215	C.RES 220
R2807	4822 116 52304	C.RES 82 kΩ
R2808	4822 116 52233	C.RES 10 kΩ
R2809	4822 116 52201	C.RES 75
R2810	4822 116 52239	C.RES 120 kΩ
R2811	4822 116 81392	M.RES 11 kΩ
R2812	4822 116 52244	C.RES 15 kΩ
R2813	4822 116 52215	C.RES 220
R2814	4822 116 52204	C.RES 1 kΩ
R2815	4822 116 52284	C.RES 47 kΩ
R2816	4822 116 52284	C.RES 47 kΩ
R2817	4822 116 52257	C.RES 22 kΩ
R2818	4822 116 52204	C.RES 1 kΩ
R2819	4822 116 52239	C.RES 120 kΩ
R2820	4822 116 52215	C.RES 220
R2821	4822 116 52233	C.RES 10 kΩ
R2822	4822 116 52239	C.RES 120 kΩ
R2823	4822 116 52264	C.RES 27 kΩ
R2824	4822 116 52245	C.RES 150 kΩ
R2825	4822 116 52204	C.RES 1 kΩ
R2826	4822 116 52245	C.RES 150 kΩ
R2827	4822 116 52244	C.RES 15 kΩ
R2828	4822 116 52256	C.RES 2.2 kΩ
R2829	4822 116 52228	C.RES 680
R2830	4822 116 52297	C.RES 68 kΩ
R2831	4822 116 52263	C.RES 2.7 kΩ
R2832	4822 116 52303	C.RES 8.2 kΩ
R2833	4822 116 52233	C.RES 10 kΩ
R2834	4822 116 52283	C.RES 4.7 kΩ
R2835	4822 116 52235	C.RES 1000 kΩ
R2836	4822 116 52256	C.RES 2.2 kΩ
R2837	4822 116 52256	C.RES 2.2 kΩ
R2838	4822 116 52257	C.RES 22 kΩ
R2839	4822 116 52204	C.RES 1 kΩ
R2840	4822 116 52204	C.RES 1 kΩ
R3002	4822 116 52257	C.RES 22 kΩ
R3004	4822 116 52233	C.RES 10 kΩ
R3005	4822 116 52256	C.RES 2.2 kΩ
R3011	4822 116 52204	C.RES 1 kΩ
R3012	4822 116 52226	C.RES 560
R3013	4822 116 52257	C.RES 22 kΩ
R3014	4822 116 52233	C.RES 10 kΩ
R3017	4822 116 52224	C.RES 470
R3018	4822 116 52204	C.RES 1 kΩ
R3019	4822 116 52233	C.RES 10 kΩ
R3020	4822 116 52234	C.RES 100 kΩ
R3021	4822 116 52269	C.RES 3.3 kΩ
R3022	4822 116 52234	C.RES 100 kΩ
R3023	4822 116 52204	C.RES 1 kΩ
R3024	4822 116 52175	C.RES 100
R3025	4822 116 52204	C.RES 1 kΩ
R3026	4822 116 52256	C.RES 2.2 kΩ
R3027	4822 116 52204	C.RES 1 kΩ

R3050	4822 116 52284	C.RES 47 kΩ
R3601	4822 116 52257	C.RES 22 kΩ
R3602	4822 116 52244	C.RES 15 kΩ
R3603	4822 116 52244	C.RES 15 kΩ
R3604	4822 116 52244	C.RES 15 kΩ
R3605	4822 116 52244	C.RES 15 kΩ
R3901	4822 116 52201	C.RES 75
R3902	4822 116 52201	C.RES 75
R3903	4822 116 52283	C.RES 75
R3904	4822 116 52283	C.RES 75
R3905	4822 116 52234	C.RES 100 kΩ
R3906	4822 116 52201	C.RES 75
R3907	4822 116 52201	C.RES 75
R3909	4822 116 52201	C.RES 75
R3910	4822 116 52201	C.RES 75
R3911	4822 116 52243	C.RES 1.5 kΩ
R3912	4822 116 52276	C.RES 3.9 kΩ
R3913	4822 116 52204	C.RES 1 kΩ
R3914	4822 116 52243	C.RES 1.5 kΩ
R3915	4822 116 52226	C.RES 560
R3951	4822 116 52201	C.RES 75
R3952	4822 116 52289	C.RES 5.6 kΩ
R3953	4822 116 52289	C.RES 5.6 kΩ
R3954	4822 116 52298	C.RES 680 kΩ
R3955	4822 116 52298	C.RES 680 kΩ
R4001	4822 116 52176	C.RES 10
R4002	4822 116 52289	C.RES 5.6 kΩ
R4004	4822 116 52291	C.RES 56 kΩ
R4005	4822 116 81393	M.RES 1.3 kΩ
R4006	4822 116 52238	C.RES 12 kΩ
R4009	4822 116 52304	C.RES 82 kΩ
R4010	4822 116 52297	C.RES 68 kΩ
R4011	4822 116 52276	C.RES 330 kΩ
R4012	4822 116 52219	C.RES 330
R4013	4822 116 52233	C.RES 10 kΩ
R4014	4822 116 52283	C.RES 4.7 kΩ
R4015	4822 116 52235	C.RES 1000 kΩ
R4016	4822 116 52289	C.RES 5.6 kΩ
R4017	4822 116 52257	C.RES 22 kΩ
R4018	4822 116 52207	C.RES 1.2 kΩ
R4019	4822 116 52283	C.RES 4.7 kΩ
R4020	4822 116 52251	C.RES 18 kΩ
R4022	4822 116 52238	C.RES 12 kΩ
R4023	4822 116 52271	C.RES 33 kΩ
R4024	4822 116 52243	C.RES 1.5 kΩ
R4026	4822 116 52243	C.RES 1.5 kΩ
R4030	4822 116 52256	C.RES 2.2 kΩ
R4031	4822 116 52283	C.RES 4.7 kΩ
R4032	4822 116 52195	C.RES 47
R4033	4822 116 52234	C.RES 100 kΩ
R4036	4822 116 52257	C.RES 22 kΩ
R4037	4822 116 52226	C.RES 560
R4040	4822 116 52283	C.RES 4.7 kΩ
R4041	4822 116 52251	C.RES 18 kΩ
R4201	4822 116 52224	C.RES 470
R4202	4822 116 52176	C.RES 10
R4203	4822 116 52233	C.RES 10 kΩ
R4204	4822 116 52217	C.RES 270
R4205	4822 116 52233	C.RES 10 kΩ
R4206	4822 116 52207	C.RES 1.2 kΩ
R4207	4822 116 52257	C.RES 22 kΩ
R4901	4822 116 52204	C.RES 1 kΩ
R4902	4822 116 52256	C.RES 2.2 kΩ
R4903	4822 116 52256	C.RES 2.2 kΩ

R4904	4822 116 52175	C.RES 100
R4905	4822 116 52175	C.RES 100
R4908	4822 116 52224	C.RES 470
R4909	4822 116 52224	C.RES 470
R4910	4822 116 52256	C.RES 2.2 kΩ
R4911	4822 116 52256	C.RES 2.2 kΩ
R4912	4822 116 52215	C.RES 220
R4913	4822 116 52215	C.RES 220
R4916	4822 116 52224	C.RES 470
R4917	4822 116 52224	C.RES 470
R4918	4822 116 52258	C.RES 220 kΩ
R4919	4822 116 52296	C.RES 6.8 kΩ
R4920	4822 116 52296	C.RES 6.8 kΩ
R4922	4822 116 81394	C.RES 2.2 kΩ
R4923	4822 116 81394	C.RES 2.2 kΩ
R4951	4822 116 52283	C.RES 4.7 kΩ
R4952	4822 116 52283	C.RES 4.7 kΩ
R4953	4822 116 52244	C.RES 15 kΩ
R4954	4822 116 52284	C.RES 47 kΩ
R4955	4822 116 52284	C.RES 47 kΩ
R4956	4822 116 52284	C.RES 47 kΩ
R4957	4822 116 52284	C.RES 47 kΩ
R4958	4822 116 81395	C.RES 27 kΩ
R4959	4822 116 81395	C.RES 27 kΩ
R4960	4822 116 52297	C.RES 68 kΩ
R4961	4822 116 52244	C.RES 15 kΩ
R4962	4822 116 52244	C.RES 15 kΩ
R4963	4822 116 52244	C.RES 15 kΩ
R4964	4822 116 52244	C.RES 15 kΩ
R4965	4822 116 52244	C.RES 15 kΩ
R4966	4822 116 52285	C.RES 470 kΩ
R4967	4822 116 52285	C.RES 470 kΩ
R4968	4822 116 52297	C.RES 68 kΩ
R4969	4822 116 52285	C.RES 470 kΩ
R4970	4822 116 52285	C.RES 470 kΩ
R4971	4822 116 52298	C.RES 680 kΩ
R4972	4822 116 52298	C.RES 680 kΩ
R4973	4822 116 52291	C.RES 56 kΩ
R4974	4822 116 81396	M.RES 39 kΩ
R4975	4822 116 52285	C.RES 470 kΩ
R4976	4822 116 81396	M.RES 39 kΩ
R4977	4822 116 52238	C.RES 12 kΩ
R4978	4822 116 52285	C.RES 470 kΩ
R4979	4822 116 52284	C.RES 47 kΩ
R4980	4822 116 52284	C.RES 47 kΩ
R4981	4822 116 52238	C.RES 12 kΩ
R4982	4822 116 52284	C.RES 47 kΩ
R4983	4822 116 52238	C.RES 12 kΩ
R4984	4822 116 52284	C.RES 47 kΩ
R4985	4822 116 52285	C.RES 470 kΩ
R4986	4822 116 52285	C.RES 470 kΩ
R4987	4822 116 52239	C.RES 120 kΩ
R4988	4822 116 52234	C.RES 100 kΩ
R4989	4822 116 52239	C.RES 120 kΩ
R4990	4822 116 52284	C.RES 47 kΩ
R4991	4822 116 52284	C.RES 47 kΩ
R4992	4822 116 52284	C.RES 47 kΩ
R4993	4822 116 52284	C.RES 47 kΩ
R4994	4822 116 52296	C.RES 6.8 kΩ
R4995	4822 116 52277	C.RES 39 kΩ
R4996	4822 116 52238	C.RES 12 kΩ
R6001	4822 116 81378	C.RES 1/2W 47 kΩ
R6002	4822 116 52284	C.RES 47 kΩ
R6005	4822 116 52269	C.RES 3.3 kΩ

R6006	4822 111 41142	C.RES 2W 22
R6007	4822 116 52207	C.RES 1.2 kΩ
R6008	4822 116 52213	C.RES 180
R6009	4822 116 52226	C.RES 560
R6010	4822 116 52204	C.RES 1 kΩ
R6011	4822 116 52215	C.RES 220
R6016	4822 116 52257	C.RES 22 kΩ
R6017	4822 116 52257	C.RES 22 kΩ
R6019	4822 116 52244	C.RES 15 kΩ
R6022	4822 116 52257	C.RES 22 kΩ
R6023	4822 116 52297	C.RES 68 kΩ
R6024	4822 116 52257	C.RES 22 kΩ
R6025	4822 116 52305	C.RES 820 kΩ
R6026	4822 116 52235	C.RES 1000 kΩ
R6027	4822 116 52257	C.RES 22 kΩ
R6028	4822 116 52252	C.RES 180 kΩ
R6029	4822 116 52226	C.RES 560
R6030	4822 116 52244	C.RES 15 kΩ
R6031	4822 116 52244	C.RES 15 kΩ
R6032	4822 116 52269	C.RES 3.3 kΩ
R6033	4822 116 52271	C.RES 33 kΩ
R6034	4822 116 52271	C.RES 33 kΩ
R6035	4822 116 52175	C.RES 100
R6036	4822 116 52175	C.RES 100
R6037	4822 116 52175	C.RES 100
R6038	4822 116 52263	C.RES 2.7 kΩ
R6041	4822 116 52222	C.RES 390
R6042	4822 116 52269	C.RES 3.3 kΩ
R6045	4822 116 52289	C.RES 5.6 kΩ
R6046	4822 116 52243	C.RES 1.5 kΩ
R6047	4822 116 52289	C.RES 5.6 kΩ
R6048	4822 116 52271	C.RES 33 kΩ
R6049	4822 116 52271	C.RES 33 kΩ
R6050	4822 116 52289	C.RES 5.6 kΩ
R6051	4822 116 52269	C.RES 3.3 kΩ
R6054	4822 116 52289	C.RES 5.6 kΩ
R6055	4822 116 52269	C.RES 3.3 kΩ
R6067	4822 116 52175	C.RES 100
R6068	4822 116 81377	C.RES 1/2W 3.3 kΩ
R6069	4822 116 52233	C.RES 10 kΩ
R6070	4822 116 52204	C.RES 1 kΩ
R6071	4822 116 52243	C.RES 1.5 kΩ
R6072	4822 116 52289	C.RES 5.6 kΩ
R6073	4822 116 52217	C.RES 270
R6074	4822 116 52206	C.RES 120
R6075	4822 116 81381	C.RES 2W 18
R6076	4822 116 52213	C.RES 180
R6077	4822 116 52217	C.RES 270
R6079	4822 116 52233	C.RES 10 kΩ
R6080	4822 116 52263	C.RES 2.7 kΩ
R6081	4822 116 52233	C.RES 10 kΩ
R6082	4822 116 52284	C.RES 47 kΩ
R6083	4822 116 52234	C.RES 100 kΩ
R6084	4822 116 52226	C.RES 560
R6085	4822 116 52226	C.RES 560
R6086	4822 116 52233	C.RES 10 kΩ
R6088	4822 116 52263	C.RES 2.7 kΩ
R6090	4822 116 52231	C.RES 820
R6091	4822 116 52289	C.RES 5.6 kΩ
R6093	4822 116 52289	C.RES 5.6 kΩ
R6096	4822 116 52217	C.RES 270
R6097	4822 116 52256	C.RES 2.2 kΩ
R6098	4822 116 52283	C.RES 4.7 kΩ
R6100	4822 116 52233	C.RES 10 kΩ
R7550	4822 116 52257	C.RES 22 kΩ

R7551	4822 116 52284	C.RES 47 kΩ
R7552	4822 116 52284	C.RES 47 kΩ
R7553	4822 116 52234	C.RES 100 kΩ
R7554	4822 116 52239	C.RES 120 kΩ
R7555	4822 116 52233	C.RES 10 kΩ
R7556	4822 116 81379	C.RES 1W 1.5 kΩ
R7557	4822 116 52233	C.RES 10 kΩ
R7558	4822 116 52204	C.RES 1 kΩ
R7559	4822 116 52269	C.RES 3.3 kΩ
R7560	4822 116 52257	C.RES 22 kΩ
R7563	4822 116 52176	C.RES 10
R7577	4822 116 52233	C.RES 10 kΩ
R7578	4822 116 52233	C.RES 10 kΩ
R7579	4822 116 52233	C.RES 10 kΩ
R7580	4822 116 52233	C.RES 10 kΩ
R7581	4822 116 52289	C.RES 5.6 kΩ
R7582	4822 116 52296	C.RES 6.8 kΩ
R7583	4822 116 52284	C.RES 47 kΩ
R7584	4822 116 52277	C.RES 39 kΩ
R7585	4822 116 52284	C.RES 47 kΩ
R7586	4822 116 52291	C.RES 56 kΩ
R7589	4822 116 52269	C.RES 3.3 kΩ
R7590	4822 116 52269	C.RES 3.3 kΩ
R7591	4822 116 52269	C.RES 3.3 kΩ
R7592	4822 116 52269	C.RES 3.3 kΩ
R7595	4822 116 52213	C.RES 180



VR2001	4822 101 30594	V.RES 50 kΩ
VR2002	4822 101 30589	V.RES 100 kΩ
VR2006	4822 101 30589	V.RES 100 kΩ
VR2009	4822 101 30587	V.RES 200 kΩ
VR2011	4822 101 30589	V.RES 100 kΩ
VR2013	4822 100 11146	V.RES 2 kΩ
VR301	4822 101 30591	V.RES 20 kΩ
VR302	4822 100 10845	V.RES 10 kΩ
VR4001	4822 101 30588	V.RES 10 kΩ
VR4002	4822 101 30592	V.RES 200 kΩ
VR4004	4822 101 30593	V.RES 5 kΩ
VR4510	4822 101 30596	V.RES 100 kΩ
VR801	4822 101 30595	V.RES 500
VR802	4822 100 10776	V.RES 1 kΩ

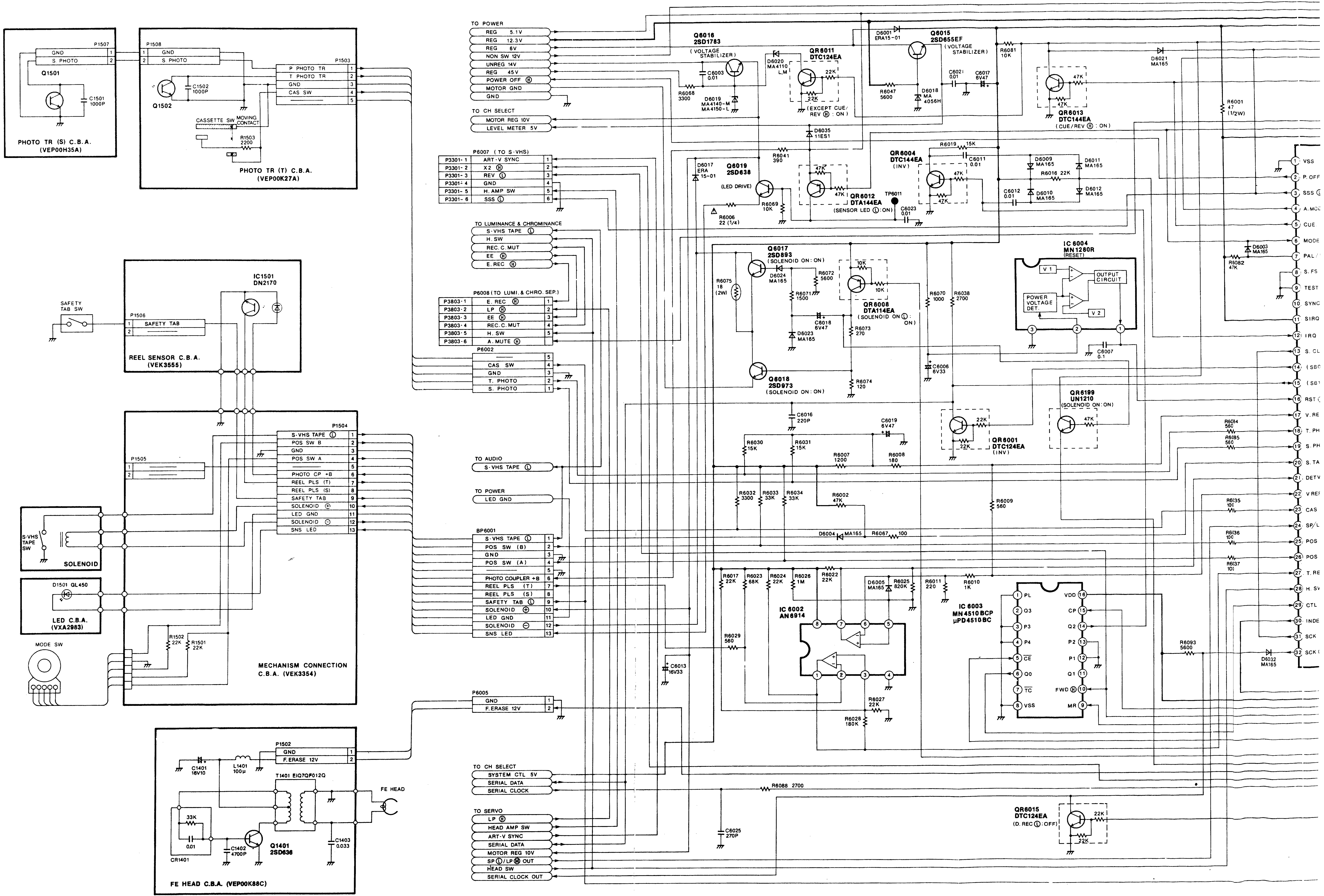
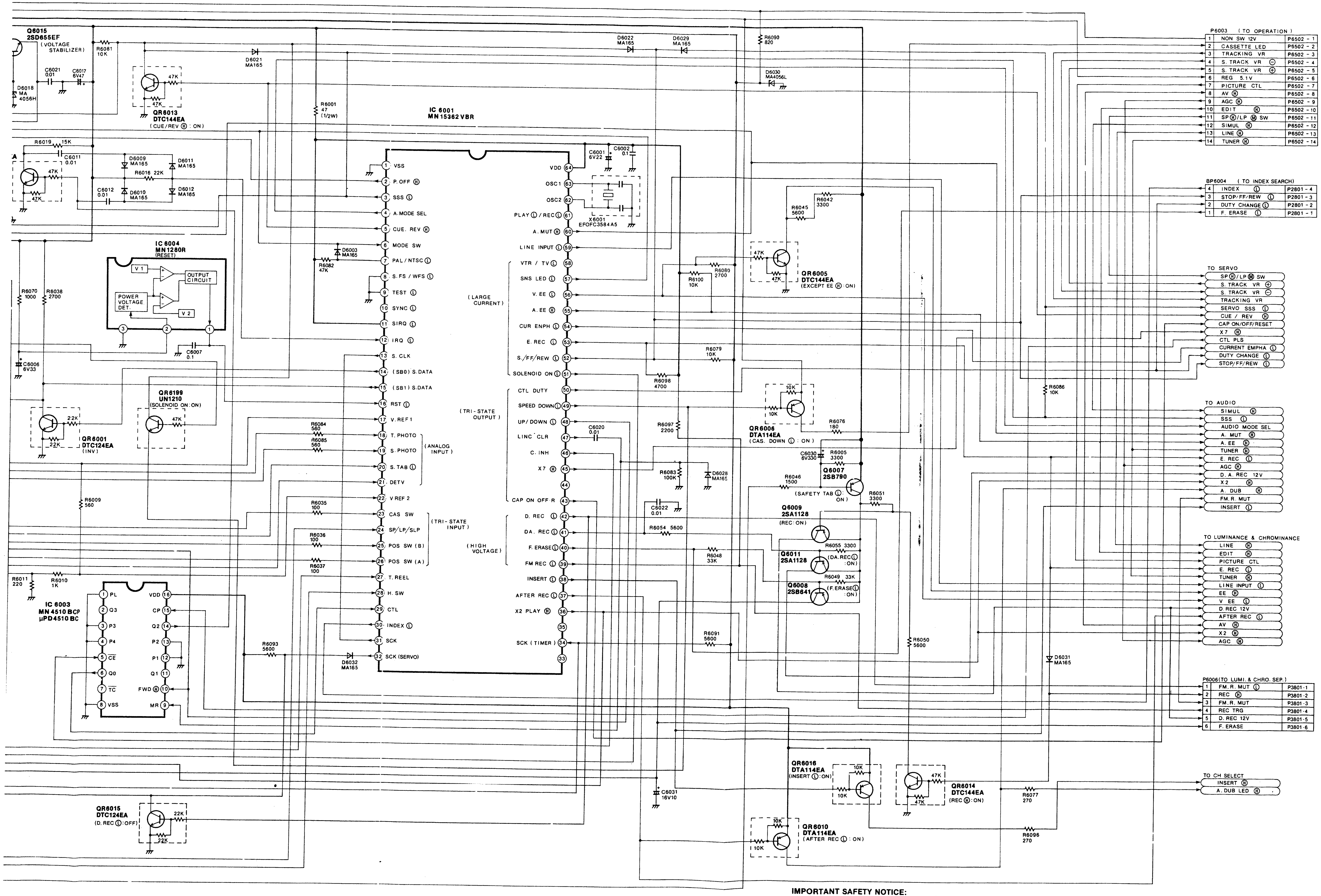


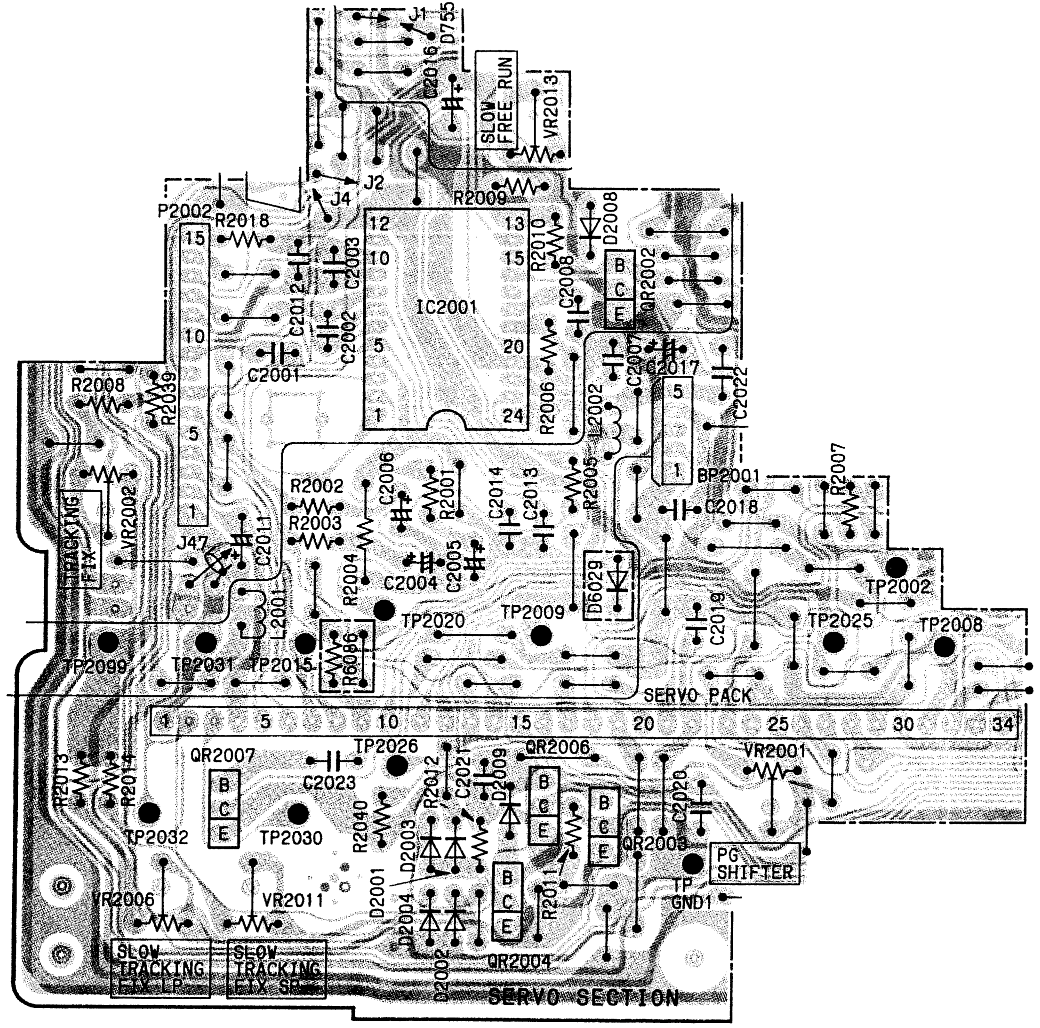
PHOTO TR (S) C.B.A. (VEP00H35A)
P1507
GND
S PHOTO
Q1501
C1501 1000P
PHOTO TR (T) C.B.A. (VEP00K27A)
P1508
P1503
P PHOTO TR
T PHOTO TR
GND
CAS SW
Q1502
C1502 1000P
CASSETTE SW
MOVING CONTACT
R1503 2200
SAFETY TAB SW
P1506
SAFETY TAB
IC1501 DN2170
REEL SENSOR C.B.A. (VEK3555)
P1504
P1505
S-VHS TAPE Ⓛ
POS SW B
GND
POS SW A
PHOTO CP +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB
SOLENOID ⊕
LED GND
SOLENOID ⊖
SNS LED
S-VHS TAPE SW
SOLENOID
D1501 GL450
LED C.B.A. (VXA2983)
MODE SW
R1502 22K
R1501 22K
MECHANISM CONNECTION C.B.A. (VEK3354)
FE HEAD C.B.A. (VEP00K88C)
P1502
GND
F.ERASE 12V
C1401 16V10
L1401 100µ
T1401 EIQ7QF012Q
FE HEAD
33K
0.01
CR1401
C1402 4700P
Q1401 2SD636
C1403 0.033
TO POWER
REG 5.1V
REG 12.3V
REG 6V
NON SW 12V
UNREG 14V
REG 45V
POWER OFF Ⓗ
MOTOR GND
GND
TO CH SELECT
MOTOR REG 10V
LEVEL METER 5V
P6007 (TO S-VHS)
P3301-1 ART-V SYNC
P3301-2 X2 Ⓗ
P3301-3 REV Ⓛ
P3301-4 GND
P3301-5 H.AMP SW
P3301-6 SSS Ⓛ
TO LUMINANCE & CHROMINANCE
S-VHS TAPE Ⓛ
H.SW
REC.C.MUT
EE Ⓗ
E.REC Ⓗ
P6008 (TO LUMI. & CHRO. SEP.)
P3803-1 E.REC Ⓗ
P3803-2 LP Ⓗ
P3803-3 EE Ⓗ
P3803-4 REC.C.MUT
P3803-5 H.SW
P3803-6 A.MUTE Ⓗ
P6002
CAS SW
GND
T.PHOTO
S.PHOTO
TO AUDIO
S-VHS TAPE Ⓛ
TO POWER
LED GND
BP6001
S-VHS TAPE Ⓛ
POS SW (B)
GND
POS SW (A)
PHOTO COUPLER +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SNS LED
P6005
GND
F.ERASE 12V
TO CH SELECT
SYSTEM CTL 5V
SERIAL DATA
SERIAL CLOCK
TO SERVO
LP Ⓗ
HEAD AMP SW
ART-V SYNC
SERIAL DATA
MOTOR REG 10V
SPⓁ/LPⒽ OUT
HEAD SW
SERIAL CLOCK OUT
Q6016 2SD1783 (VOLTAGE STABILIZER)
C6003 0.01
R6068 3300
D6019 MA4140-M MA4150-L
D6020 MA4110 L,M
QR6011 DTC124EA
22K
(EXCEPT CUE/REV Ⓗ : ON)
D6035 11ES1
D6001 ERA15-01
Q6015 2SD655EF (VOLTAGE STABILIZER)
R6047 5600
D6018 MA 4056H
C6021 0.01
C6017 6V47
R6081 10K
QR6013 DTC124EA (CUE/REV Ⓗ : ON)
47K
D6021 MA165
R6001 47 (1/2W)
D6017 ERA 15-01
Q6019 2SD638 (LED DRIVE)
R6041 390
R6006 22 (1/4)
R6069 10K
QR6012 DTA144EA (SENSOR LED Ⓛ : ON)
TP6011
C6023 0.01
QR6004 DTC144EA (INV)
R6019 15K
C6011 0.01
D6009 MA165
R6016 22K
D6011 MA165
C6012 0.01
D6010 MA165
D6012 MA165
Q6017 2SD893 (SOLENOID ON : ON)
D6024 MA165
R6075 18 (2W)
R6072 5600
R6071 1500
QR6008 DTA114EA (SOLENOID ON Ⓛ : ON)
10K
C6018 6V47
D6023 MA165
R6073 270
Q6018 2SD973 (SOLENOID ON : ON)
R6074 120
R6070 1000
R6038 2700
C6006 6V33
IC6004 MN1280R (RESET)
V1
OUTPUT CIRCUIT
POWER VOLTAGE DET.
V2
C6007 0.1
D6003 MA165
R6082 47K
QR6199 UN1210 (SOLENOID ON : ON)
QR6001 DTC124EA (INV)
C6016 220P
C6019 6V47
R6030 15K
R6031 15K
R6007 1200
R6008 180
R6032 3300
R6033 33K
R6034 33K
R6002 47K
R6009 560
D6004 MA165
R6067 100
R6017 22K
R6023 68K
R6024 22K
R6026 1M
R6022 22K
D6005 MA165
R6025 820K
R6011 220
R6010 1K
IC6002 AN6914
R6029 560
R6027 22K
R6028 180K
C6013 16V33
IC6003 MN4510BCP µPD4510BC
PL
Q3
P3
P4
CE
Q0
TC
VSS
VDD
CP
Q2
P2
P1
Q1
FWD Ⓗ
MR
R6088 2700
C6025 270P
QR6015 DTC124EA (D.RECⓁ : OFF)
R6093 5600
R6084 560
R6085 560
R6135 100
R6136 100
R6137 100
D6032 MA165
VSS
P.OFF
SSS Ⓛ
A.MCU
CUE
MODE
PAL
S.FS
TEST
SYNC
SIRQ
IRQ
S.CL
(SBC
(SBI
RST
V.RE
T.PH
S.PH
S.TA
DETV
V REF
CAS
SP/L
POS
POS
T.RE
H.SV
CTL
INDE
SCK
SCK

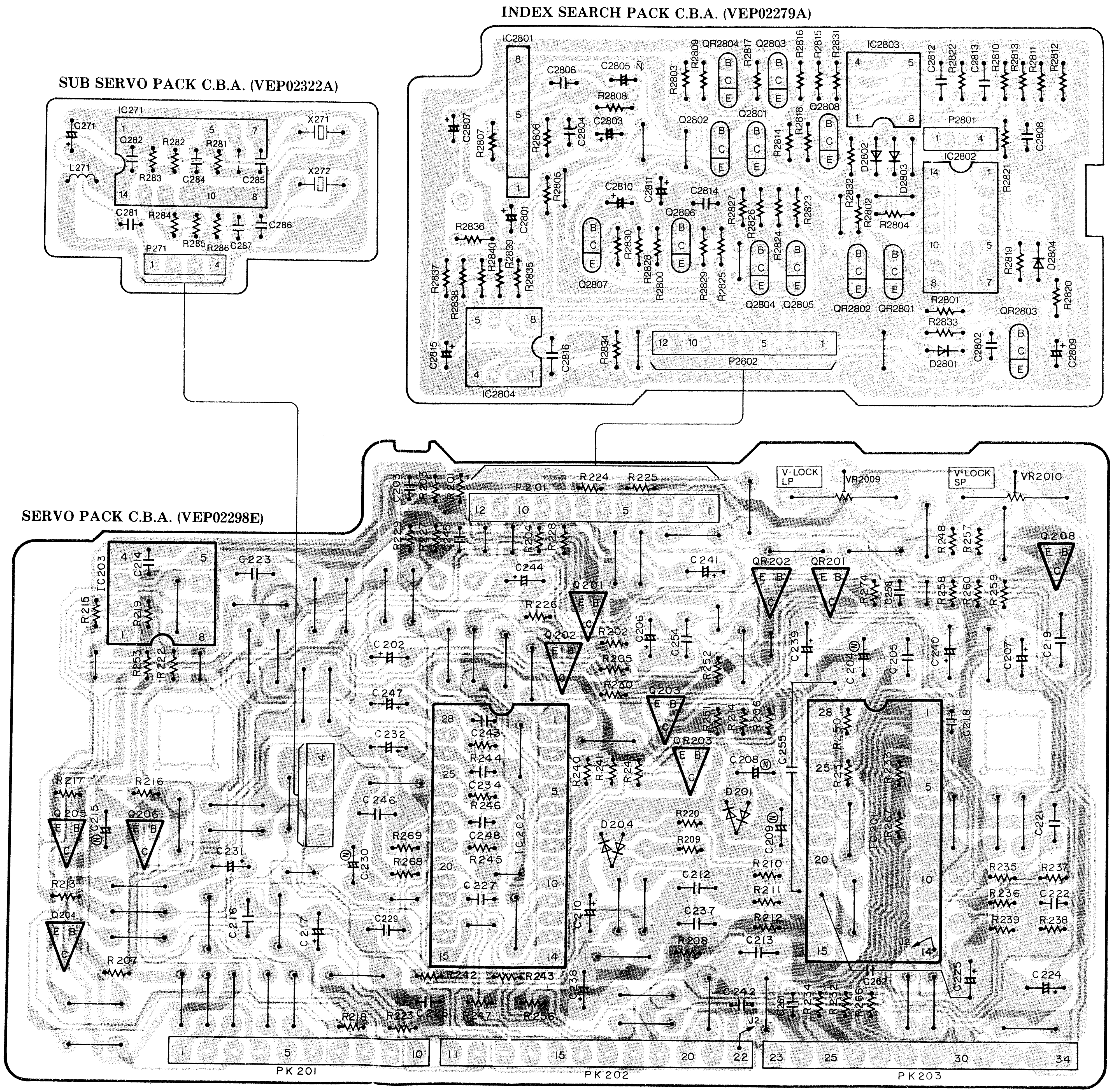
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

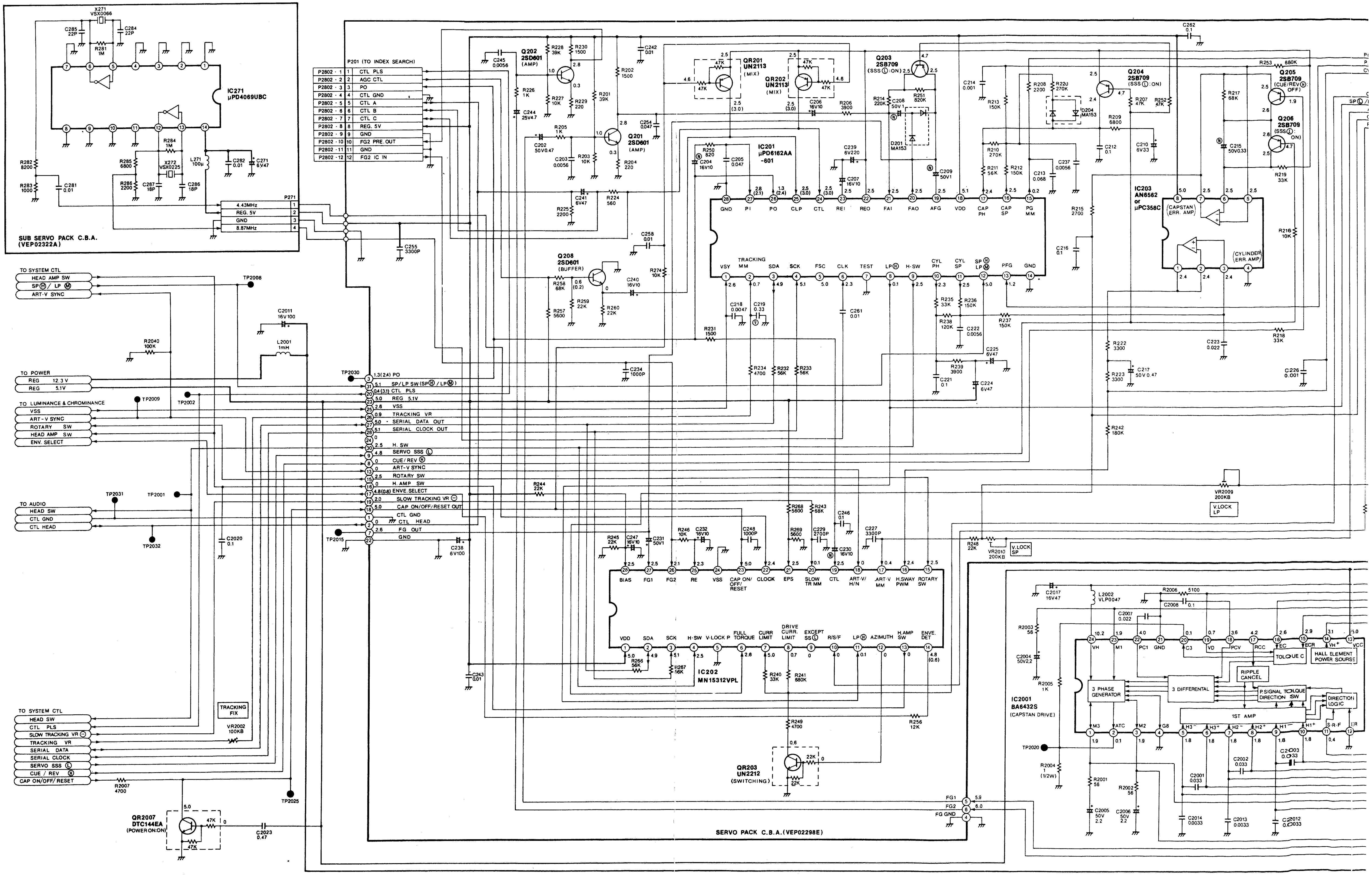

Q6015
2SD655EF
(VOLTAGE STABILIZER)
R6081 10K
C6021 001
C6017 6V47
D6018 MA 4056H
D6021 MA165
QR6013
DTC144EA
(CUE/REV Ⓗ : ON)
47K
R6001 47 (1/2W)
IC 6001
MN 15362 VBR
D6022 MA165
D6029 MA165
R6090 820
D6030 MA4056L
C6001 6V22
C6002 0.1
R6019 15K
C6011 0.01
D6009 MA165
D6011 MA165
R6016 22K
C6012 0.01
D6010 MA165
D6012 MA165
47K
IC 6004
MN1280R
(RESET)
V 1
OUTPUT CIRCUIT
POWER VOLTAGE DET.
V 2
C6007 0.1
R6070 1000
R6038 2700
C6006 6V33
QR6199
UN1210
(SOLENOID ON : ON)
QR6001
DTC124EA
(INV)
22K
R6009 560
R6011 220
R6010 1K
IC 6003
MN 4510 BCP
μPD 4510 BC
1 PL
2 Q3
3 P3
4 P4
5 CE
6 Q0
7 TC
8 VSS
VDD 16
CP 15
Q2 14
P2 13
P1 12
Q1 11
FWD Ⓗ 10
MR 9
1 VSS
2 P. OFF Ⓗ
3 SSS Ⓛ
4 A. MODE SEL
5 CUE. REV Ⓗ
6 MODE SW
7 PAL / NTSC Ⓛ
8 S. FS / WFS Ⓛ
9 TEST Ⓛ
10 SYNC Ⓛ
11 SIRQ Ⓛ
12 IRQ Ⓛ
13 S. CLK
14 (SB0) S. DATA
15 (SB1) S. DATA
16 RST Ⓛ
17 V. REF 1
18 T. PHOTO
19 S. PHOTO
20 S. TAB Ⓛ
21 DETV
22 V REF 2
23 CAS SW
24 SP/LP/SLP
25 POS SW (B)
26 POS SW (A)
27 T. REEL
28 H. SW
29 CTL
30 INDEX Ⓛ
31 SCK
32 SCK (SERVO)
(ANALOG INPUT)
(TRI - STATE INPUT)
(LARGE CURRENT)
(TRI - STATE OUTPUT)
(HIGH VOLTAGE)
D6003 MA165
R6082 47K
R6084 560
R6085 560
R6035 100
R6036 100
R6037 100
R6093 5600
D6032 MA165
VDD 64
OSC1 63
OSC2 62
PLAY Ⓛ / REC Ⓛ 61
A. MUT Ⓗ 60
LINE INPUT Ⓛ 59
VTR / TV Ⓛ 58
SNS LED Ⓛ 57
V. EE Ⓛ 56
A. EE Ⓛ 55
CUR ENPH Ⓛ 54
E. REC Ⓛ 53
S./FF/REW Ⓛ 52
SOLENOID ON Ⓛ 51
CTL DUTY 50
SPEED DOWN Ⓛ 49
UP/ DOWN Ⓛ 48
LINC CLR 47
C. INH 46
X7 Ⓗ 45
44
CAP ON OFF R 43
D. REC Ⓛ 42
DA. REC Ⓛ 41
F. ERASE Ⓛ 40
FM REC Ⓛ 39
INSERT Ⓛ 38
AFTER REC Ⓛ 37
X2 PLAY Ⓗ 36
35
SCK (TIMER) 34
33
X6001 EFOFC3584A5
R6045 5600
R6042 3300
47K
QR6005
DTC144EA
(EXCEPT EE Ⓗ : ON)
R6100 10K
R6080 2700
R6079 10K
R6098 4700
R6097 2200
10K
QR6006
DTA114EA
(CAS. DOWN Ⓛ : ON)
R6076 180
C6020 0.01
C6030 6V330
R6005 3300
Q6007
2SB790
(SAFETY TAB Ⓛ : ON)
R6046 1500
R6083 100K
D6028 MA165
R6051 3300
C6022 0.01
Q6009
2SA1128
(REC : ON)
R6054 5600
R6055 3300
R6048 33K
Q6011
2SA1128
(DA. REC Ⓛ : ON)
R6049 33K
Q6008
2SB641
(F. ERASE Ⓛ : ON)
R6091 5600
R6050 5600
R6086 10K
D6031 MA165
C6031 16V10
QR6016
DTA114EA
(INSERT Ⓛ : ON)
QR6014
DTC144EA
(REC Ⓗ : ON)
R6077 270
R6096 270
QR6010
DTA114EA
(AFTER REC Ⓛ : ON)
QR6015
DTC124EA
(D. REC Ⓛ : OFF)
P6003 (TO OPERATION)
1 NON SW 12V P6502 - 1
2 CASSETTE LED P6502 - 2
3 TRACKING VR P6502 - 3
4 S. TRACK VR ⊖ P6502 - 4
5 S. TRACK VR ⊕ P6502 - 5
6 REG 5.1V P6502 - 6
7 PICTURE CTL P6502 - 7
8 AV Ⓗ P6502 - 8
9 AGC Ⓗ P6502 - 9
10 EDIT Ⓗ P6502 - 10
11 SP Ⓗ / LP Ⓜ SW P6502 - 11
12 SIMUL Ⓗ P6502 - 12
13 LINE Ⓗ P6502 - 13
14 TUNER Ⓗ P6502 - 14
BP6004 (TO INDEX SEARCH)
4 INDEX Ⓛ P2801 - 4
3 STOP/FF/REW Ⓛ P2801 - 3
2 DUTY CHANGE Ⓛ P2801 - 2
1 F. ERASE Ⓛ P2801 - 1
TO SERVO
SP Ⓗ / LP Ⓜ SW
S. TRACK VR ⊕
S. TRACK VR ⊖
TRACKING VR
SERVO SSS Ⓛ
CUE / REV Ⓗ
CAP ON/OFF/RESET
X7 Ⓗ
CTL PLS
CURRENT EMPHA Ⓛ
DUTY CHANGE Ⓛ
STOP/FF/REW Ⓛ
TO AUDIO
SIMUL Ⓗ
SSS Ⓛ
AUDIO MODE SEL
A. MUT Ⓗ
A. EE Ⓗ
TUNER Ⓗ
E. REC Ⓛ
AGC Ⓗ
D. A. REC 12V
X2 Ⓗ
A. DUB Ⓗ
FM. R. MUT
INSERT Ⓛ
TO LUMINANCE & CHROMINANCE
LINE Ⓗ
EDIT Ⓗ
PICTURE CTL
E. REC Ⓛ
TUNER Ⓗ
LINE INPUT Ⓛ
EE Ⓗ
V EE Ⓛ
D. REC 12V
AFTER REC Ⓛ
AV Ⓗ
X2 Ⓗ
AGC Ⓗ
P6006 (TO LUMI. & CHRO. SEP.)
1 FM. R. MUT Ⓛ P3801-1
2 REC Ⓗ P3801-2
3 FM. R. MUT P3801-3
4 REC TRG P3801-4
5 D. REC 12V P3801-5
6 F. ERASE P3801-6
TO CH SELECT
INSERT Ⓗ
A. DUB LED Ⓗ

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

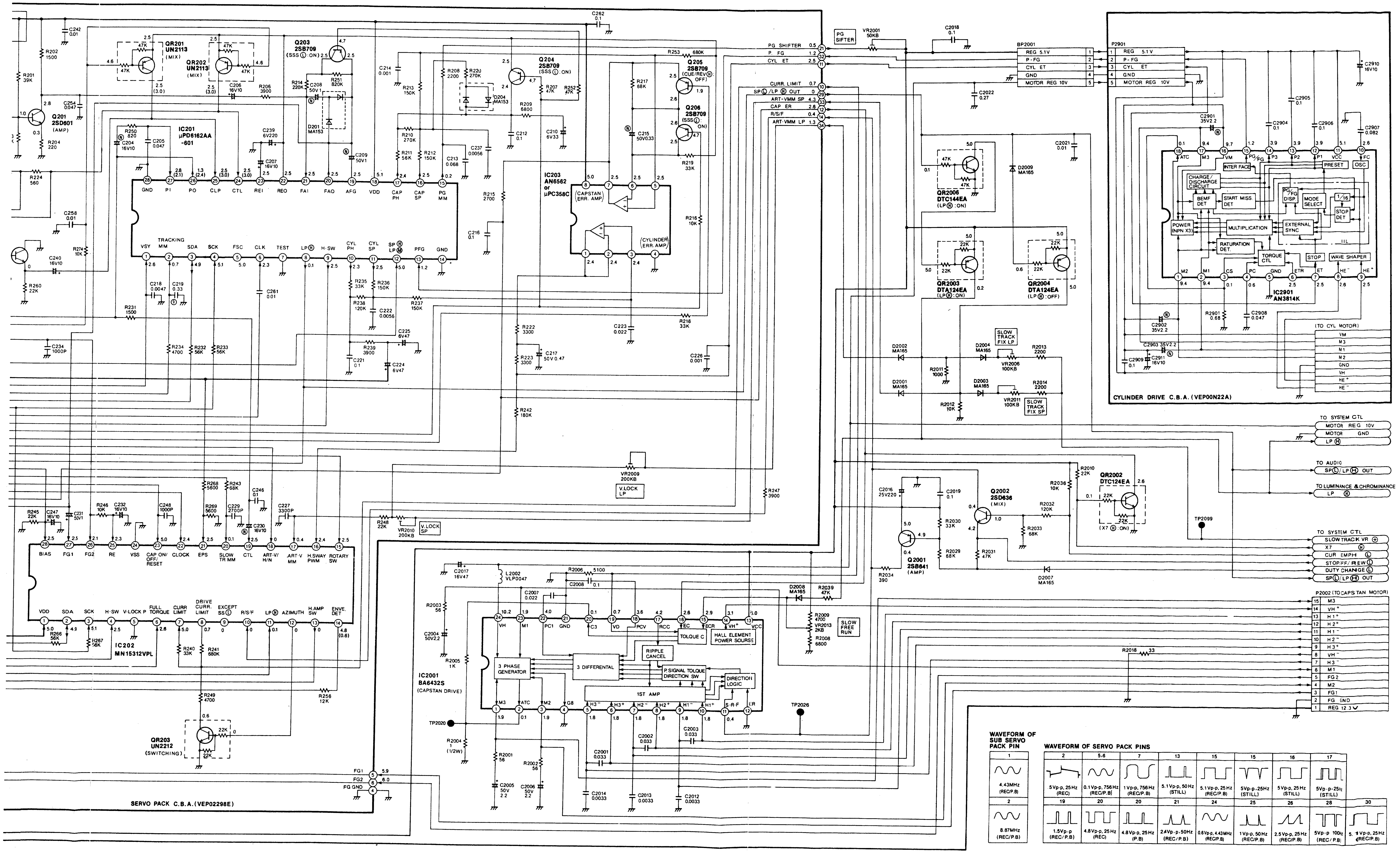

J1
D7559
C2016
SLOW FREE RUN
VR2013
J2
J4
R2009
P2002
R2018
C2003
C2012
C2002
C2001
IC2001
R2010
D2008
C2008
QR2002
B
C
E
R2008
R2039
TRACKING FIX
VR2002
J47
C2011
L2001
R2006
L2002
C2007
C2017
C2022
BP2001
R2007
C2018
R2002
R2003
R2004
C2006
R2001
C2014
C2013
R2005
C2004
C2005
D6029
C2019
R6086
TP2099
TP2031
TP2015
TP2020
TP2009
TP2025
TP2002
TP2008
SERVO PACK
QR2007
C2023
TP2026
R2012
C2021
D2009
QR2006
VR2001
C2020
R2013
R2014
TP2032
TP2030
R2040
D2003
D2001
D2004
D2002
R2011
QR2003
QR2004
PG SHIFTER
TP GND1
VR2006
VR2011
SLOW TRACKING FIX LP
SLOW TRACKING FIX SP
SERVO SECTION


INDEX SEARCH PACK C.B.A. (VEP02279A)
SUB SERVO PACK C.B.A. (VEP02322A)
SERVO PACK C.B.A. (VEP02298E)
IC271
X271
X272
L271
C271
P271
IC2801
IC2802
IC2803
IC2804
P2801
P2802
QR2801
QR2802
QR2803
QR2804
D2801
D2802
D2803
D2804
P201
IC201
IC202
IC203
V-LOCK LP
VR2009
V-LOCK SP
VR2010
Q201
Q202
Q203
Q204
Q205
Q206
Q208
QR201
QR202
QR203
D201
D204
J2
PK201
PK202
PK203


SUB SERVO PACK C.B.A. (VEP02322A)
IC271 μPD4069UBC
X271 VSX0066
X272 VSX0225
L271 100μ
P271
4.43MHz
REG. 5V
GND
8.87MHz
P201 (TO INDEX SEARCH)
CTL PLS
AGC CTL
PO
CTL GND
CTL A
CTL B
CTL C
REG. 5V
GND
FG2 PRE. OUT
GND
FG2 IC IN
Q202 2SD601 (AMP)
Q201 2SD601 (AMP)
Q208 2SD601 (BUFFER)
QR201 UN2113 (MIX)
QR202 UN2113 (MIX)
Q203 2SB709 (SSS Ⓛ:ON)
D201 MA153
Q204 2SB709 (SSS Ⓛ:ON)
D204 MA153
Q205 2SB709 (CUE/REV Ⓡ: OFF)
Q206 2SB709 (SSS Ⓛ: ON)
IC201 μPD6162AA -601
GND PI PO CLP CTL REI REO FAI FAO AFG VDD CAP PH CAP SP PG MM
VSY TRACKING MM SDA SCK FSC CLK TEST LP Ⓗ H·SW CYL PH CYL SP SP Ⓗ LP Ⓜ PFG GND
IC203 AN6562 or μPC358C
(CAPSTAN ERR. AMP)
(CYLINDER ERR AMP)
TO SYSTEM CTL
HEAD AMP SW
SP Ⓗ / LP Ⓜ
ART·V SYNC
TP2008
TO POWER
REG 12.3V
REG 5.1V
TO LUMINANCE & CHROMINANCE
VSS
ART·V SYNC
ROTARY SW
HEAD AMP SW
ENV. SELECT
TO AUDIO
HEAD SW
CTL GND
CTL HEAD
TP2009
TP2002
TP2031
TP2001
TP2032
TP2030
TP2015
TP2025
TP2020
1.3(24) PO
SP/LP SW (SP Ⓗ / LP Ⓜ)
CTL PLS
REG 5.1V
VSS
TRACKING VR
SERIAL DATA OUT
SERIAL CLOCK OUT
H. SW
SERVO SSS Ⓛ
CUE/REV Ⓡ
ART·V SYNC
ROTARY SW
H. AMP SW
ENVE. SELECT
SLOW TRACKING VR ⊖
CAP ON/OFF/RESET OUT
CTL GND
CTL HEAD
FG OUT
GND
TO SYSTEM CTL
HEAD SW
CTL PLS
SLOW TRACKING VR ⊖
TRACKING VR
SERIAL DATA
SERIAL CLOCK
SERVO SSS Ⓛ
CUE / REV Ⓡ
CAP ON/OFF/ RESET
TRACKING FIX
VR2002 100KB
QR2007 DTC144EA (POWER ON:ON)
IC202 MN15312VPL
BIAS FG1 FG2 RE VSS CAP ON/ OFF/ RESET CLOCK EPS SLOW TR MM CTL ART·V/ H/N ART·V MM H.SWAY PWM ROTARY SW
VDD SDA SCK H·SW V·LOCK P FULL TORQUE CURR LIMIT DRIVE CURR. LIMIT EXCEPT SSⓁ R/S/F LP Ⓗ AZIMUTH H.AMP SW ENVE. DET
QR203 UN2212 (SWITCHING)
VR2009 200KB
V.LOCK LP
VR2010 200KB
V.LOCK SP
SERVO PACK C.B.A. (VEP02298E)
FG1 FG2 FG GND
IC2001 BA6432S (CAPSTAN DRIVE)
3 PHASE GENERATOR
3 DIFFERENTIAL
RIPPLE CANCEL
TOLQUE C
HALL ELEMENT POWER SOURSE
P.SIGNAL TOLQUE DIRECTION SW
DIRECTION LOGIC
1ST AMP
VH M1 PC1 GND C3 VD PCV RCC EC ECR VH⁺ VCC
M3 ATC M2 G8 H3⁻ H3⁺ H2⁻ H2⁺ H1⁻ H1⁺ S·R·F
L2002 VLP0047

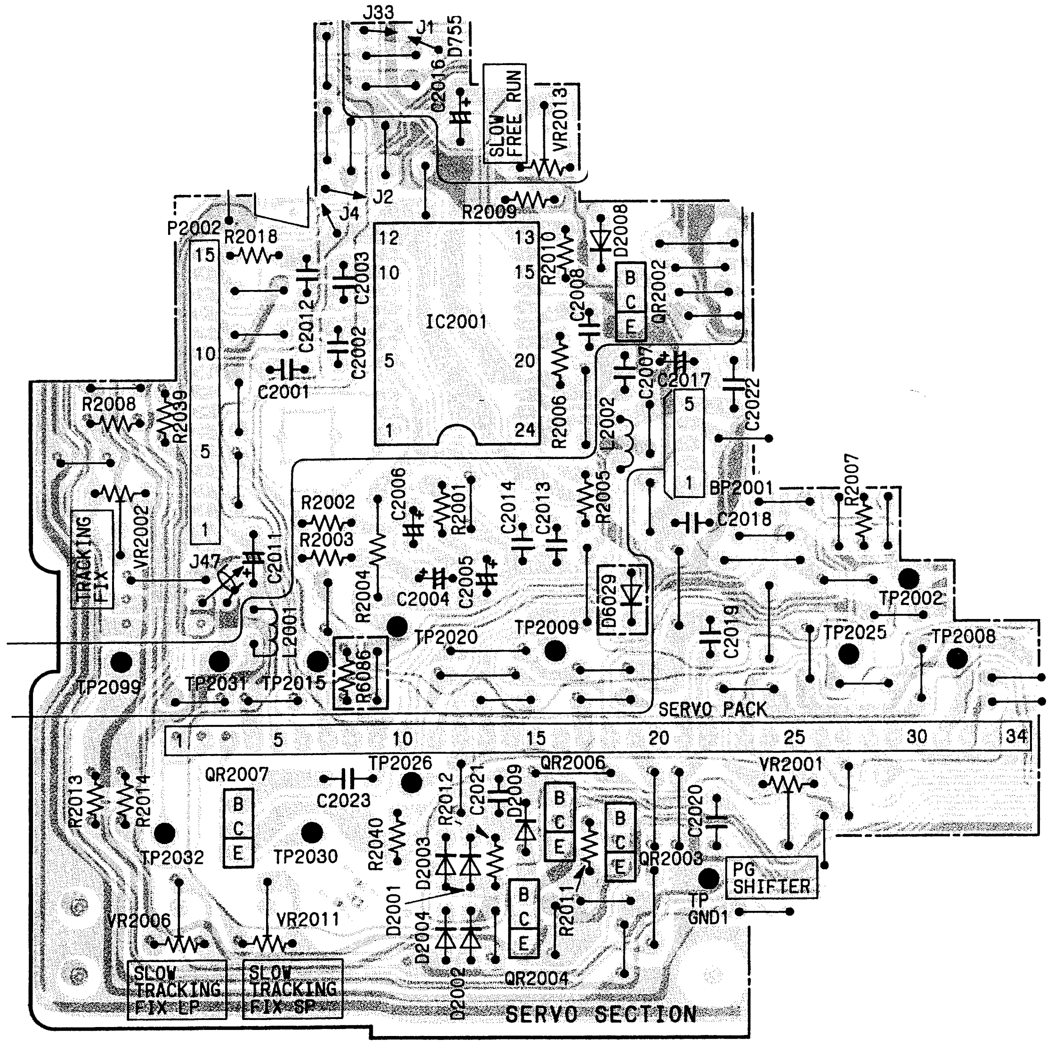
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN T
WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT
WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

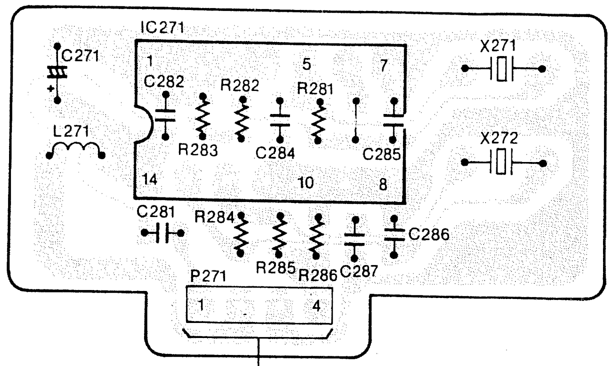

Q201
2SD601
(AMP)
QR201
UN2113
(MIX)
QR202
UN2113
(MIX)
Q203
2SB709
(SSS Ⓛ:ON)
Q204
2SB709
(SSS Ⓛ:ON)
Q205
2SB709
(CUE/REV Ⓗ: OFF)
Q206
2SB709
(SSS Ⓛ: ON)
IC201
µPD6162AA
-601
IC203
AN6562
or
µPC358C
(CAPSTAN ERR. AMP)
(CYLINDER ERR. AMP)
GND
PI
PO
CLP
CTL
REI
REO
FAI
FAO
AFG
VDD
CAP PH
CAP SP
PG MM
VSY
TRACKING MM
SDA
SCK
FSC
CLK
TEST
LP Ⓗ
H-SW
CYL PH
CYL SP
SP Ⓗ LP Ⓢ
PFG
PG SHIFTER
P. FG
CYL ET
CURR. LIMIT
SP Ⓛ/LP Ⓗ OUT
ART-VMM SP
CAP ER
R/S/F
ART-VMM LP
PG SIFTER
VR2001 50KB
BP2001
REG 5.1V
P-FG
CYL ET
GND
MOTOR REG 10V
P2901
IC2901
AN3814K
ATC
M3
VM
INTER FACE
FG
P3
P2
P1
VCC
FC
PRESET
OSC
CHARGE/ DISCHARGE CIRCUIT
BEMF DET
START MISS DET
FG DISP
MODE SELECT
1/16
STOP DET
POWER (NPN X3)
MULTIPLICATION
EXTERNAL SYNC
RATURATION DET.
TORQUE CTL
STOP
WAVE SHAPER
M2
M1
CS
PC
GND
ETR
ET
HE⁻
HE⁺
(TO CYL MOTOR)
VM
M3
M1
M2
GND
VH
HE⁺
HE⁻
CYLINDER DRIVE C.B.A. (VEP00N22A)
QR2006
DTC144EA
(LP Ⓗ :ON)
QR2003
DTA124EA
(LP Ⓗ :ON)
QR2004
DTA124EA
(LP Ⓗ :OFF)
D2009 MA165
SLOW TRACK FIX LP
SLOW TRACK FIX SP
VR2006 100KB
VR2011 100KB
TO SYSTEM CTL
MOTOR REG 10V
MOTOR GND
LP Ⓗ
TO AUDIO
SP Ⓛ/LP Ⓗ OUT
TO LUMINANCE & CHROMINANCE
LP Ⓗ
QR2002
DTC124EA
(X7 Ⓗ :ON)
Q2002
2SD636
(MIX)
Q2001
2SB641
(AMP)
TP2099
TO SYSTEM CTL
SLOW TRACK VR ⊕
X7 Ⓗ
CUR EMPH Ⓛ
STOP/FF/REW Ⓛ
DUTY CHANGE Ⓛ
SP Ⓛ/LP Ⓗ OUT
P2002 (TO CAPSTAN MOTOR)
M3
VH⁺
H1⁺
H2⁺
H1⁻
H2⁻
H3⁺
VH⁻
H3⁻
M1
FG2
M2
FG1
FG GND
REG 12.3V
VR2009 200KB
V.LOCK LP
V.LOCK SP
VR2010 200KB
IC202
MN15312VPL
BIAS
FG1
FG2
RE
VSS
CAP ON/ OFF/ RESET
CLOCK
EPS
SLOW TR MM
CTL
ART-V/ H/N
ART-V MM
H.SWAY PWM
ROTARY SW
VDD
SDA
SCK
H-SW
V-LOCK P
FULL TORQUE
CURR LIMIT
DRIVE CURR. LIMIT
EXCEPT SS Ⓛ
R/S/F
LP Ⓗ
AZIMUTH
H.AMP SW
ENVE. DET
QR203
UN2212
(SWITCHING)
IC2001
BA6432S
(CAPSTAN DRIVE)
L2002 VLP0047
VH
M1
PC1
GND
C3
VD
PCV
RCC
EC
ECR
VH⁺
VCC
TOLQUE C
HALL ELEMENT POWER SOURSE
RIPPLE CANCEL
3 PHASE GENERATOR
3 DIFFERENTAL
P.SIGNAL TOLQUE DIRECTION SW
DIRECTION LOGIC
1ST AMP
M3
ATC
M2
G8
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
S-R-F
ER
SLOW FREE RUN
TP2020
TP2026
FG1
FG2
FG GND
SERVO PACK C.B.A. (VEP02298E)
WAVEFORM OF SUB SERVO PACK PIN
1
4.43MHz (REC/P.B)
2
8.87MHz (REC/P.B)
WAVEFORM OF SERVO PACK PINS
2
5Vp-p, 25Hz (REC)
5,6
0.1Vp-p, 756Hz (REC/P.B)
7
1Vp-p, 756Hz (REC/P.B)
13
5.1Vp-p, 50Hz (STILL)
15
5.1Vp-p, 25Hz (REC/P.B)
15
5Vp-p, 25Hz (STILL)
16
5Vp-p, 25Hz (STILL)
17
5Vp-p, 25Hz (STILL)
19
1.5Vp-p (REC/P.B)
20
4.8Vp-p, 25Hz (REC)
20
4.8Vp-p, 25Hz (P.B)
21
2.4Vp-p, 50Hz (REC/P.B)
24
0.6Vp-p, 4.43MHz (REC/P.B)
25
1Vp-p, 50Hz (REC/P.B)
26
2.5Vp-p, 25Hz (REC/P.B)
28
5Vp-p 100Hz (REC/P.B)
30
5.1Vp-p, 25Hz (REC/P.B)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

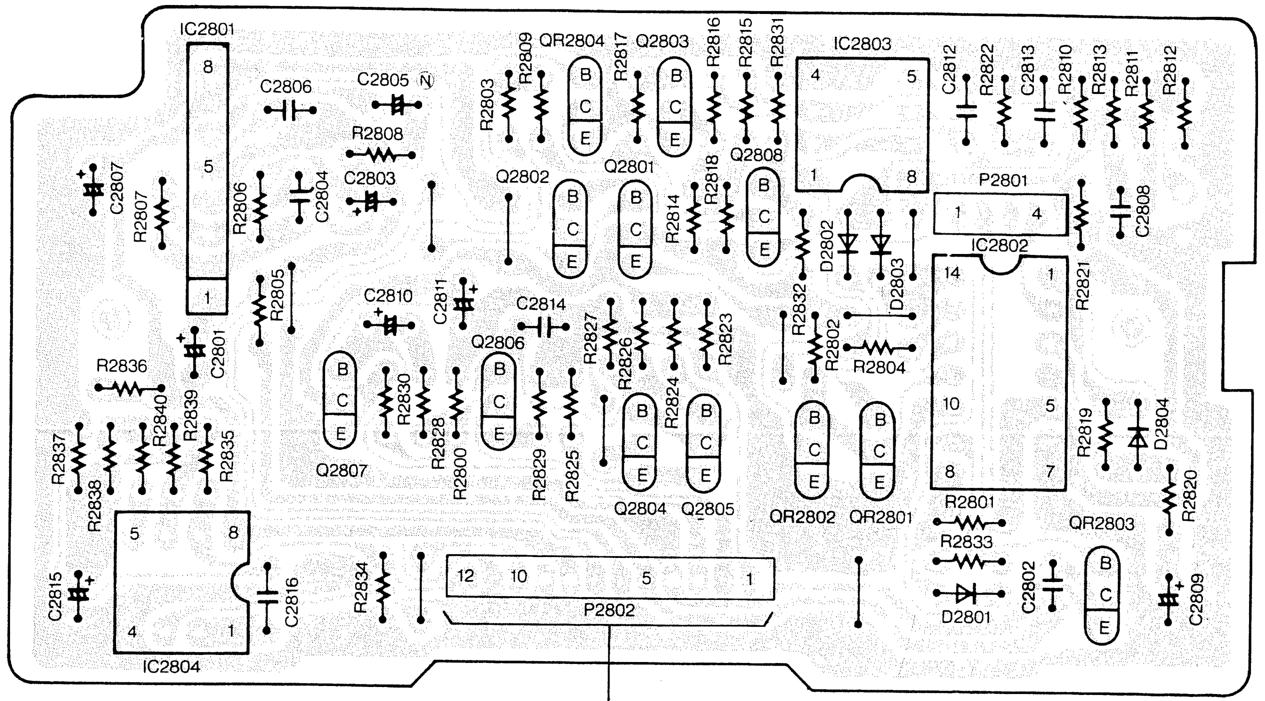
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)


J33
J1
D755
C2016
SLOW FREE RUN
VR2013
J2
J4
P2002
R2018
R2009
12
13
10
15
IC2001
5
20
1
24
R2010
D2008
C2003
C2012
C2002
C2001
C2008
B
C
E
QR2002
C2007
C2017
C2022
R2006
L2002
BP2001
R2007
R2008
R2039
TRACKING FIX
VR2002
J47
C2011
R2002
R2003
R2004
C2006
R2001
C2004
C2005
C2014
C2013
R2005
D6029
C2018
C2019
TP2002
TP2020
TP2009
TP2025
TP2008
TP2099
TP2031
TP2015
L2001
R6086
SERVO PACK
1
5
10
15
20
25
30
34
R2013
R2014
QR2007
TP2026
C2023
TP2032
TP2030
R2040
R2012
C2021
D2009
QR2006
D2003
D2001
D2004
D2002
R2011
QR2003
QR2004
C2020
VR2001
PG SHIFTER
TP GND1
VR2006
VR2011
SLOW TRACKING FIX LP
SLOW TRACKING FIX SP
SERVO SECTION

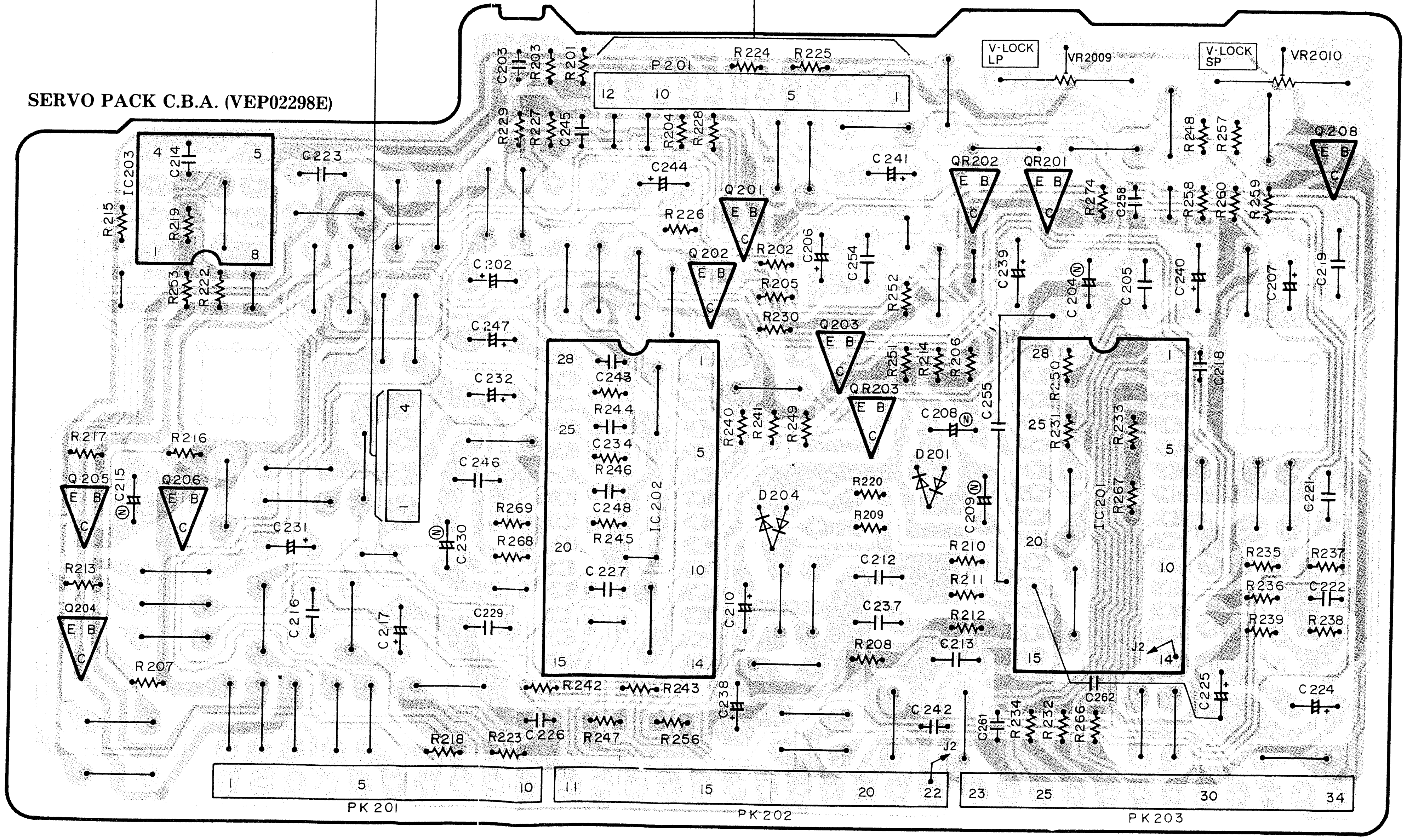
SUB SERVO PACK C.B.A. (VEP02322A)

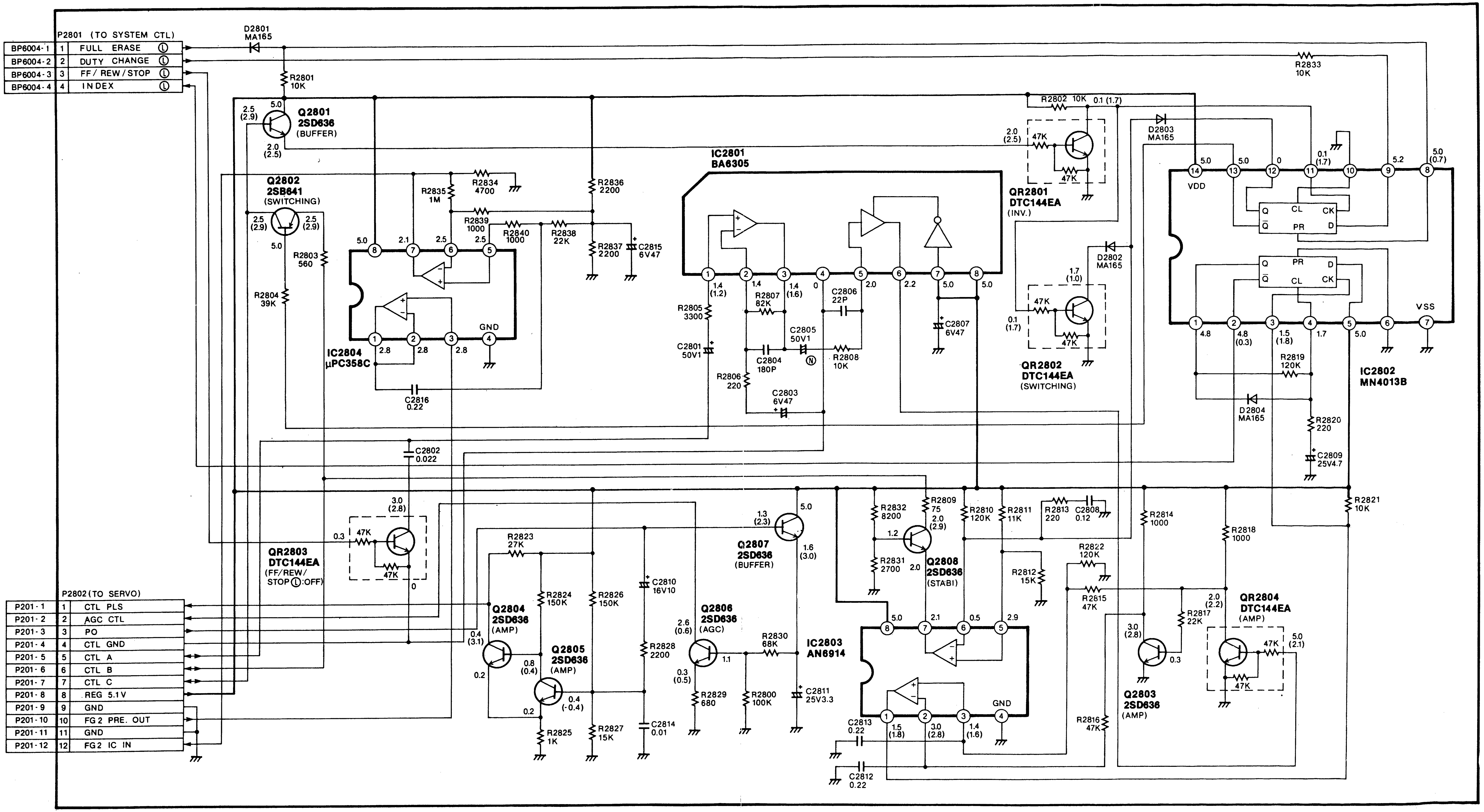

IC271
C271
L271
C282
R282
R281
R283
C284
C285
X271
X272
C281
R284
R285
R286
C287
C286
P271
1
4
5
7
14
10
8

INDEX SEARCH PACK C.B.A. (VEP02279A)


IC2801
C2806
C2805
R2808
C2803
C2804
R2806
C2807
R2807
R2805
C2801
R2836
R2837
R2838
R2840
R2839
R2835
QR2804
Q2803
R2803
R2809
R2817
R2816
R2815
R2831
Q2802
Q2801
Q2808
R2814
R2818
D2802
D2803
C2810
C2811
C2814
Q2806
Q2807
R2830
R2828
R2800
R2829
R2825
R2827
R2826
R2824
R2823
Q2804
Q2805
R2832
R2802
R2804
QR2802
QR2801
IC2803
C2812
R2822
C2813
R2810
R2813
R2811
R2812
P2801
C2808
IC2802
R2821
R2819
D2804
R2820
R2801
R2833
D2801
C2802
QR2803
C2809
IC2804
C2815
C2816
R2834
P2802
12
10
5
1

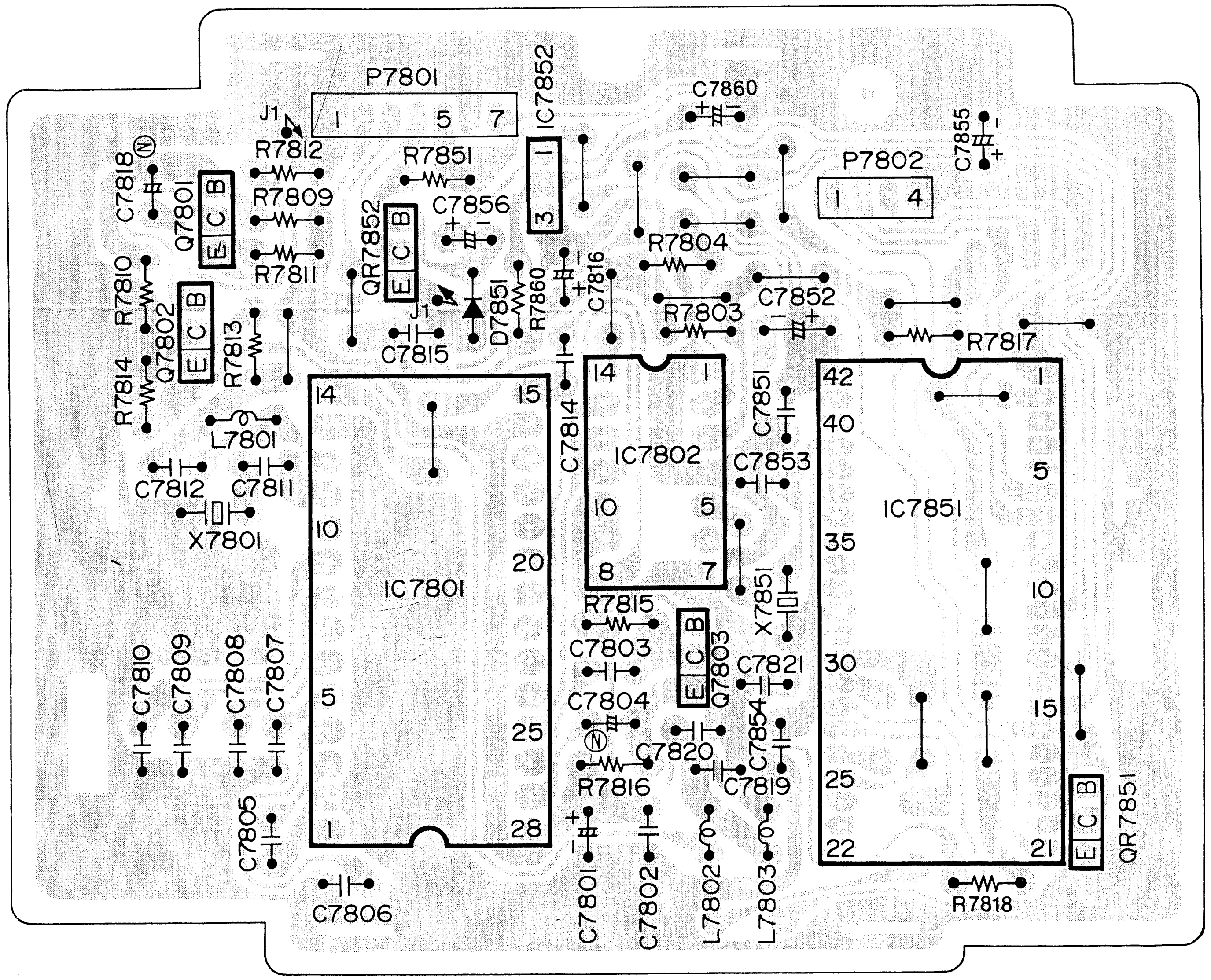
SERVO PACK C.B.A. (VEP02298E)

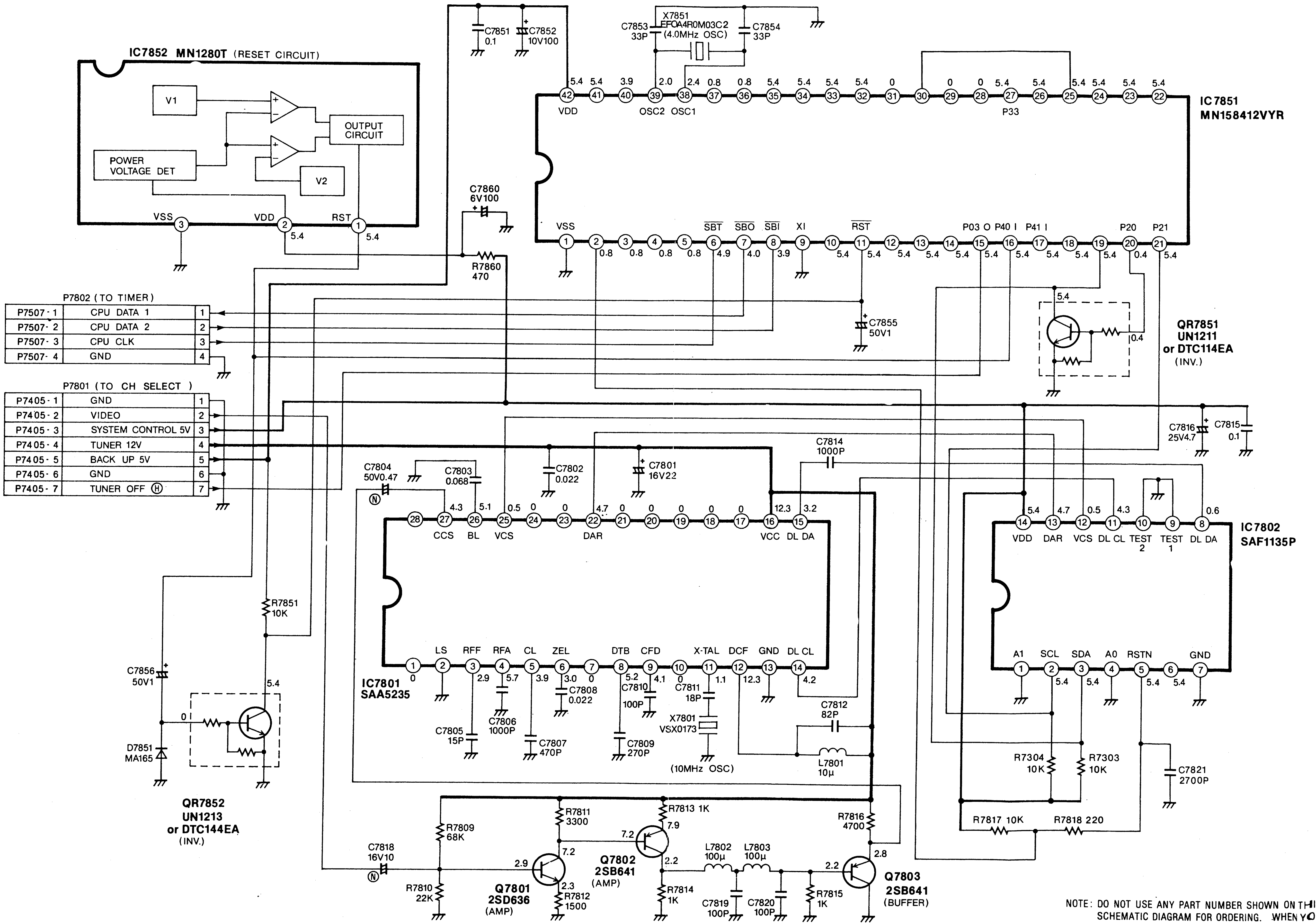

IC203
C214
R219
R215
R253
R222
C223
C203
R203
R201
R229
R227
C245
R204
R228
P201
R224
R225
C244
C241
R226
Q201
Q202
R202
R205
R230
C206
C254
R252
Q203
QR203
R251
R214
R206
C202
C247
C232
C246
R269
R268
C230
C231
C229
C216
C217
IC202
C243
R244
C234
R246
C248
R245
C227
R240
R241
R249
D204
R220
R209
C208
D201
C209
C255
R210
R211
R212
R208
C212
C237
C213
C210
V-LOCK LP
VR2009
V-LOCK SP
VR2010
QR202
QR201
R274
C258
R248
R257
R258
R260
R259
Q208
C239
C204
C205
C240
C207
C219
IC201
R250
R231
R233
R267
C218
C221
R235
R237
R236
C222
R239
R238
C225
C224
C262
J2
R234
R232
R266
C261
C242
C238
R242
R243
R247
R256
R218
R223
C226
R217
R216
Q205
C215
Q206
R213
Q204
R207
PK201
PK202
PK203
1
5
10
11
15
20
22
23
25
30
34


P2801 (TO SYSTEM CTL)
BP6004-1 1 FULL ERASE Ⓛ
BP6004-2 2 DUTY CHANGE Ⓛ
BP6004-3 3 FF/REW/STOP Ⓛ
BP6004-4 4 INDEX Ⓛ
D2801 MA165
R2801 10K
R2833 10K
R2802 10K
0.1 (1.7)
Q2801 2SD636 (BUFFER)
Q2802 2SB641 (SWITCHING)
R2803 560
R2804 39K
R2835 1M
R2834 4700
R2839 1000
R2840 1000
R2838 22K
R2836 2200
R2837 2200
C2815 6V47
IC2804 μPC358C
GND
C2816 0.22
C2802 0.022
IC2801 BA6305
R2805 3300
C2801 50V1
R2807 82K
C2806 22P
C2805 50V1
C2804 180P
R2808 10K
R2806 220
C2803 6V47
C2807 6V47
QR2801 DTC144EA (INV.)
QR2802 DTC144EA (SWITCHING)
47K
D2803 MA165
D2802 MA165
D2804 MA165
IC2802 MN4013B
VDD
VSS
Q CL CK
Q̄ PR D
R2819 120K
R2820 220
C2809 25V4.7
R2821 10K
QR2803 DTC144EA (FF/REW/STOP Ⓛ:OFF)
P2802 (TO SERVO)
P201-1 1 CTL PLS
P201-2 2 AGC CTL
P201-3 3 PO
P201-4 4 CTL GND
P201-5 5 CTL A
P201-6 6 CTL B
P201-7 7 CTL C
P201-8 8 REG 5.1V
P201-9 9 GND
P201-10 10 FG2 PRE. OUT
P201-11 11 GND
P201-12 12 FG2 IC IN
R2823 27K
Q2804 2SD636 (AMP)
Q2805 2SD636 (AMP)
R2824 150K
R2826 150K
R2825 1K
R2827 15K
C2810 16V10
R2828 2200
C2814 0.01
Q2806 2SD636 (AGC)
Q2807 2SD636 (BUFFER)
R2829 680
R2830 68K
R2800 100K
C2811 25V3.3
IC2803 AN6914
R2832 8200
R2831 2700
R2809 75
Q2808 2SD636 (STABI)
R2810 120K
R2811 11K
R2813 220
C2808 0.12
R2812 15K
R2822 120K
R2815 47K
R2814 1000
R2818 1000
R2817 22K
R2816 47K
Q2803 2SD636 (AMP)
QR2804 DTC144EA (AMP)
C2813 0.22
C2812 0.22

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

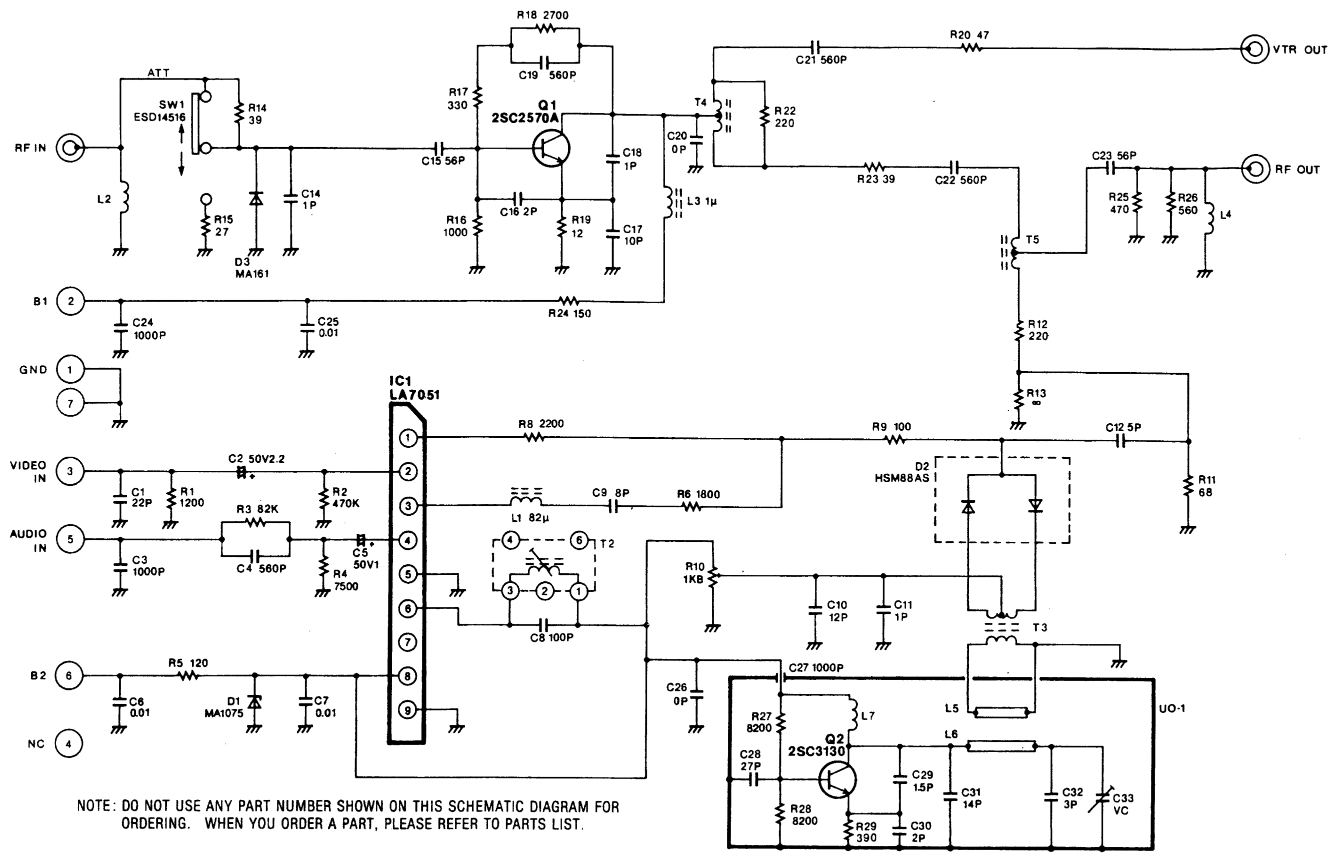
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


P7801
1
5
7
J1
R7812
R7851
IC7852
1
3
C7860
C7855
P7802
1
4
C7818
Q7801
E C B
R7809
C7856
QR7852
E C B
R7811
R7810
Q7802
E C B
R7813
R7814
J1
C7815
D7851
R7860
C7816
R7804
R7803
C7852
R7817
C7814
L7801
C7812
C7811
X7801
14
15
10
20
IC7801
5
25
1
28
IC7802
14
1
10
5
8
7
C7851
C7853
IC7851
42
1
40
5
35
10
30
15
25
22
21
X7851
R7815
C7803
Q7803
E C B
C7821
C7804
C7854
C7820
R7816
C7819
C7810
C7809
C7808
C7807
C7805
C7806
C7801
C7802
L7802
L7803
QR7851
E C B
R7818

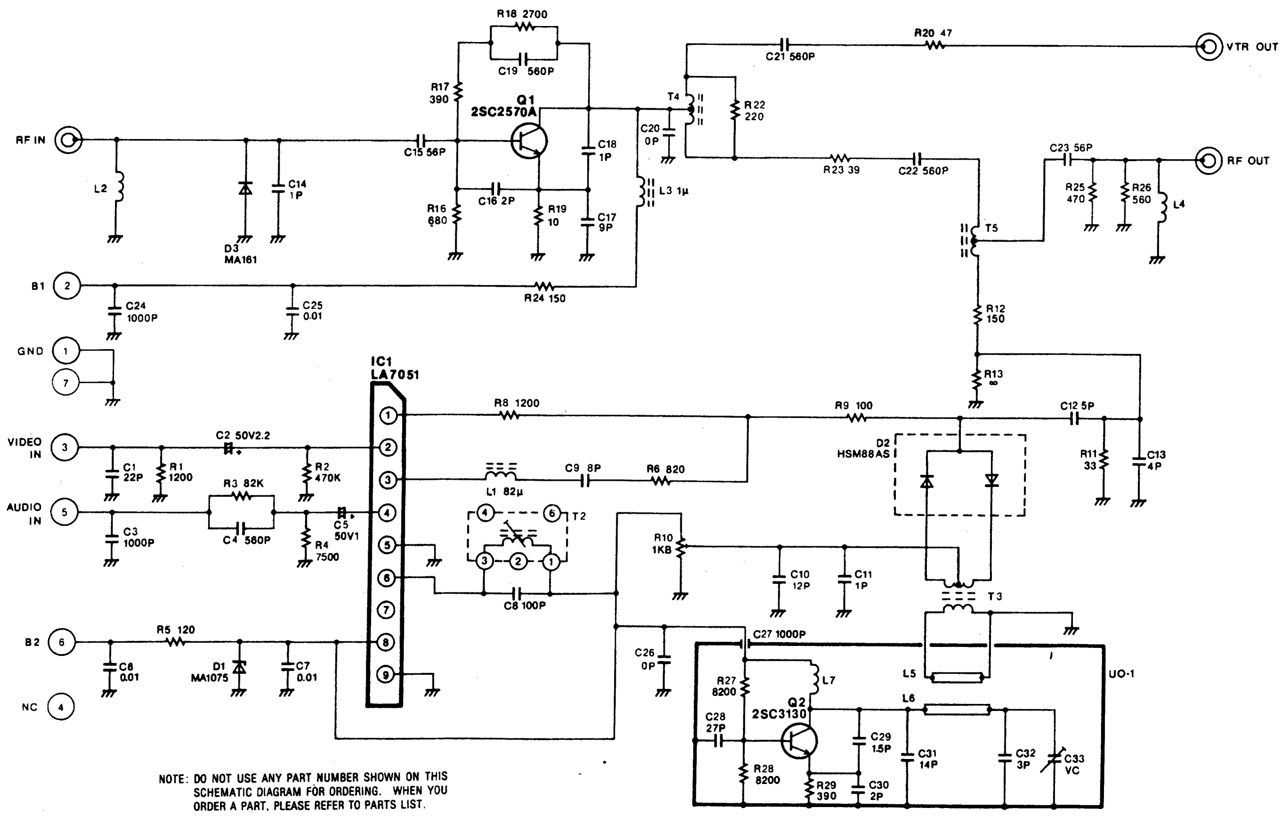

IC7852 MN1280T (RESET CIRCUIT)
V1
V2
OUTPUT CIRCUIT
POWER VOLTAGE DET
VSS
VDD
RST
5.4
C7851 0.1
C7852 10V100
C7853 33P
X7851 EFOA4R0M03C2 (4.0MHz OSC)
C7854 33P
C7860 6V100
R7860 470
IC7851 MN158412VYR
VDD
OSC2
OSC1
P33
VSS
SBT
SBO
SBI
XI
RST
P03 O
P40 I
P41 I
P20
P21
C7855 50V1
QR7851 UN1211 or DTC114EA (INV.)
P7802 (TO TIMER)
P7507-1 CPU DATA 1
P7507-2 CPU DATA 2
P7507-3 CPU CLK
P7507-4 GND
P7801 (TO CH SELECT)
P7405-1 GND
P7405-2 VIDEO
P7405-3 SYSTEM CONTROL 5V
P7405-4 TUNER 12V
P7405-5 BACK UP 5V
P7405-6 GND
P7405-7 TUNER OFF Ⓗ
C7804 50V0.47
C7803 0.068
C7802 0.022
C7801 16V22
C7814 1000P
C7816 25V4.7
C7815 0.1
IC7801 SAA5235
CCS
BL
VCS
DAR
VCC
DL DA
LS
RFF
RFA
CL
ZEL
DTB
CFD
X-TAL
DCF
GND
DL CL
C7805 15P
C7806 1000P
C7807 470P
C7808 0.022
C7809 270P
C7810 100P
C7811 18P
X7801 VSX0173 (10MHz OSC)
C7812 82P
L7801 10μ
IC7802 SAF1135P
VDD
DAR
VCS
DL CL
TEST 2
TEST 1
DL DA
A1
SCL
SDA
A0
RSTN
GND
R7304 10K
R7303 10K
C7821 2700P
R7817 10K
R7818 220
R7851 10K
C7856 50V1
D7851 MA165
QR7852 UN1213 or DTC144EA (INV.)
C7818 16V10
R7809 68K
R7810 22K
R7811 3300
R7812 1500
Q7801 2SD636 (AMP)
R7813 1K
Q7802 2SB641 (AMP)
R7814 1K
L7802 100μ
L7803 100μ
C7819 100P
C7820 100P
R7815 1K
R7816 4700
Q7803 2SB641 (BUFFER)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.


RF IN
ATT
SW1
ESD14516
R14 39
R15 27
L2
D3 MA161
C14 1P
C15 56P
R17 330
R18 2700
C19 560P
Q1 2SC2570A
C16 2P
R16 1000
R19 12
C18 1P
C17 10P
L3 1μ
T4
C20 0P
R22 220
C21 560P
R20 47
VTR OUT
R23 39
C22 560P
C23 56P
RF OUT
R25 470
R26 560
L4
T5
R12 220
R13 ∞
B1 2
C24 1000P
C25 0.01
R24 150
GND 1
7
IC1 LA7051
VIDEO IN 3
AUDIO IN 5
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C4 560P
C3 1000P
C5 50V1
R4 7500
R8 2200
L1 82μ
C9 8P
R6 1800
T2
C8 100P
R9 100
C12 5P
R11 68
D2 HSM88AS
R10 1KB
C10 12P
C11 1P
T3
B2 6
R5 120
C6 0.01
D1 MA1075
C7 0.01
NC 4
C26 0P
C27 1000P
R27 8200
L7
Q2 2SC3130
C28 27P
R28 8200
R29 390
C29 1.5P
C30 2P
L5
L6
C31 14P
C32 3P
C33 VC
UO-1

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


RF IN
L2
D3 MA161
C14 1P
C15 56P
R17 390
R18 2700
C19 560P
Q1 2SC2570A
C16 2P
R16 680
R19 10
C18 1P
C17 9P
L3 1μ
T4
C20 0P
R22 220
C21 560P
R20 47
VTR OUT
R23 39
C22 560P
C23 56P
RF OUT
R25 470
R26 560
L4
T5
R12 150
R13 ∞
B1 2
C24 1000P
C25 0.01
R24 150
GND 1
7
IC1 LA7051
VIDEO IN 3
AUDIO IN 5
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C4 560P
C3 1000P
C5 50V1
R4 7500
R8 1200
L1 82μ
C9 8P
R6 820
T2
C8 100P
R9 100
C12 5P
R11 33
C13 4P
D2 HSM88AS
R10 1KB
C10 12P
C11 1P
T3
B2 6
R5 120
C6 0.01
D1 MA1075
C7 0.01
NC 4
C26 0P
C27 1000P
R27 8200
L7
Q2 2SC3130
C28 27P
R28 8200
R29 390
C29 1.5P
C30 2P
L5
L6
C31 14P
C32 3P
C33 VC
UO-1

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

V14333

G-Tape deck DM 4/0
DM 4/2
DMP 4/0
DMP 4/2
DMS 4/2

Service
Service
Service

Service Manual

VHS

PAL/SECAM

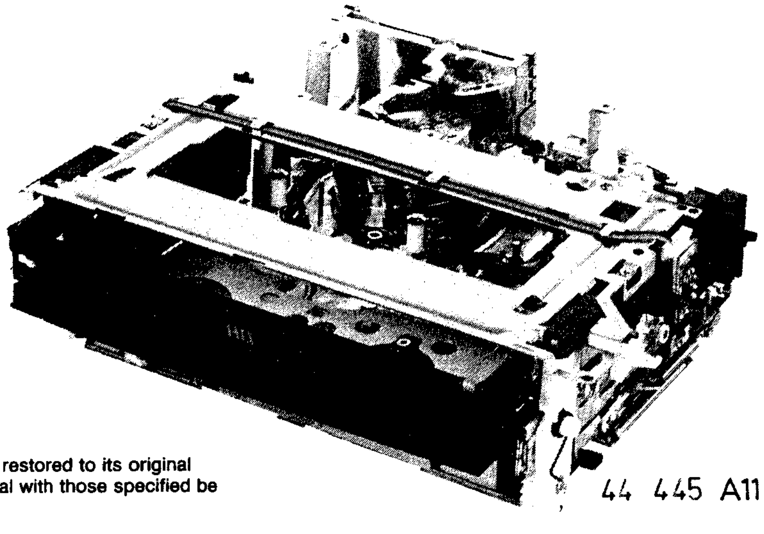
DM 4/0 is a G-tape deck (DM=Deck Mechanism) with four video heads on the head disc, suitable for "perfect stil". Futhermore this tape-deck is suitable for "long play" and meets the half loading requirements.

DM 4/2 is a G-tape deck (DM=Deck Mechanism) with four video and two audio heads on the head disc, suitable for "perfect stil" and FM audio. Futhermore this tape-deck is suitable for "long play" and meets the half loading requirements.

DMP 4/0 is identical to the DM 4/0, however this tape-deck has been equiped with a different scanning unit.

DMP 4/2 is identical to the DM 4/2, however this tape-deck has been equiped with a different scanning unit.

DMS 4/2 is a G-tape deck (DMS=Deck mechanism S-VHS) with four video and two audio heads on the head disc, suitable for "perfect stil", FM audio and to record or play back video signals via the S-VHS system. Futhermore this tape-deck is suitable for "long play" and meets the half loading requirements.



Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçio

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agrées, seuls habilités à réparer votre appareil en panne".

Subject to modification

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CS 23 560 GB

INTRODUCTION

This Service Manual describes the mechanical adjustment procedures needed for properly adjusting the G–Tape Deck. Mechanical adjustment procedures needed for video recorders incorporating the G–Tape Deck are described in chapter 2 " Mechanical Adjustment Procedures".

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Service Information

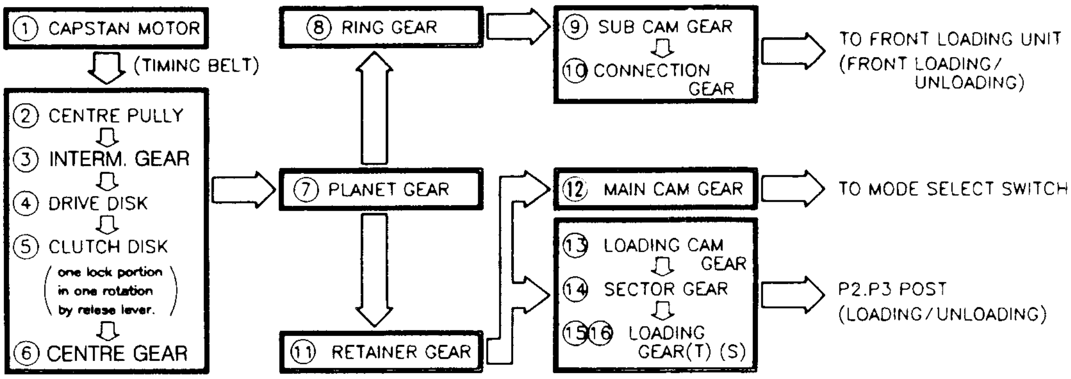
* VR86-16
* Service information included in this ducumentation.

1. SERVICE INFORMATION

1.1 The phase of G-tape deck

The capstan motor of the G–tape deck works as a loading (threading) motor and a front loading motor in a conventional tapedeck. This capstan motor controls all mechanical components of the G-tape deck.
Therefore the phase of the mechanical condition becomes very important. Pay much attention to the phase of the tape deck, when reinstall any components of the tape deck, refer to chapter 4.

Adjustment procedures, should be performed. even after installation of the cassette compartment.
The mechanical movement from the drive source (capstan motor) to all other main mechanical compontents is shown in following flow chart, see Fig. 1-1.
Fig 1-2 shows the loading movement direction.


① CAPSTAN MOTOR
(TIMING BELT)
② CENTRE PULLY
③ INTERM. GEAR
④ DRIVE DISK
⑤ CLUTCH DISK
one lock portion in one rotation by relese lever.
⑥ CENTRE GEAR
⑧ RING GEAR
⑦ PLANET GEAR
⑪ RETAINER GEAR
⑨ SUB CAM GEAR
⑩ CONNECTION GEAR
TO FRONT LOADING UNIT (FRONT LOADING/ UNLOADING)
⑫ MAIN CAM GEAR
TO MODE SELECT SWITCH
⑬ LOADING CAM GEAR
⑭ SECTOR GEAR
⑮⑯ LOADING GEAR(T) (S)
P2.P3 POST (LOADING/UNLOADING)

※ Switching of Loading and Front Loading is performed by Detent Arm.

Fig. 1-1

"➡" marks show Mechanism movement of Loading direction

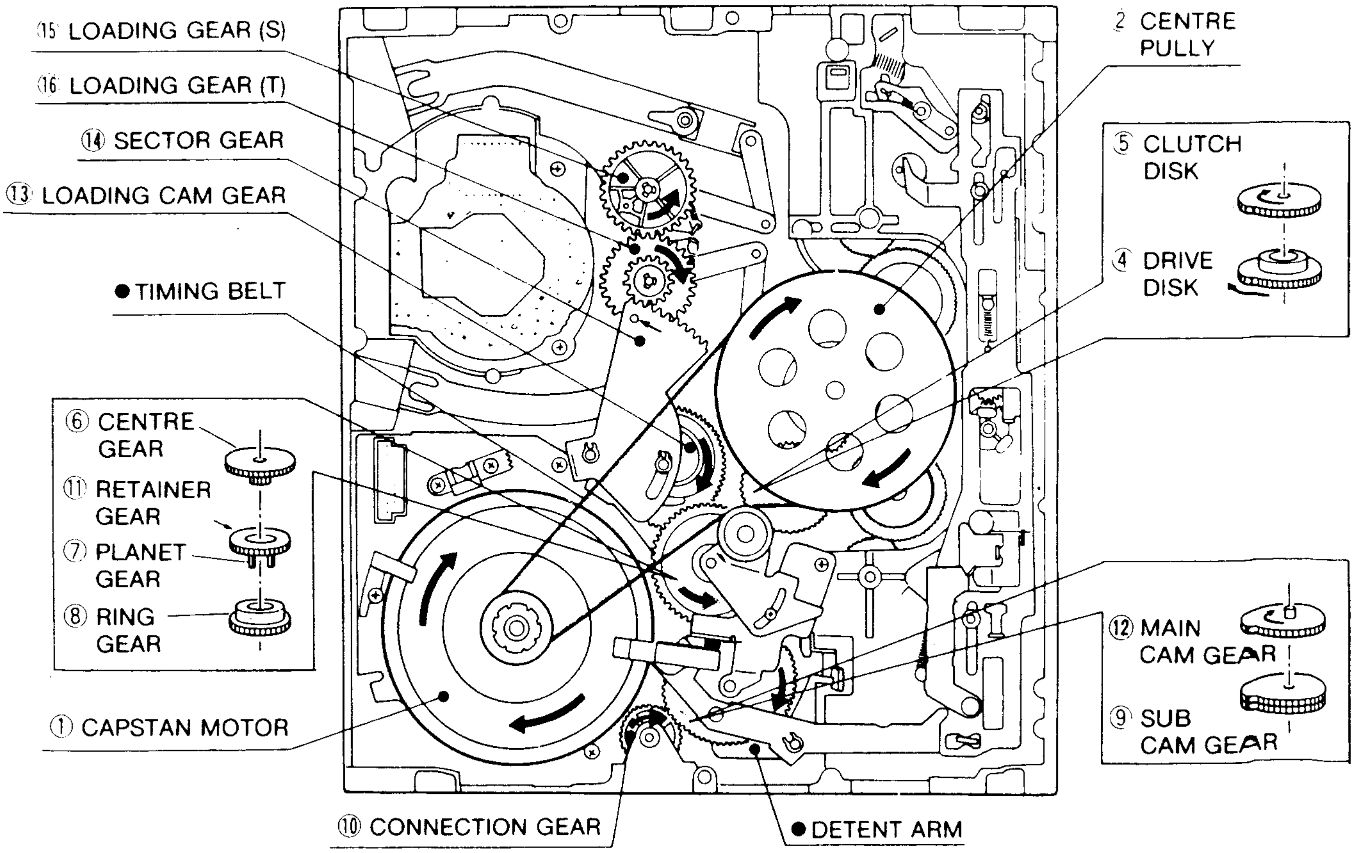

⑮ LOADING GEAR (S)
⑯ LOADING GEAR (T)
⑭ SECTOR GEAR
⑬ LOADING CAM GEAR
● TIMING BELT
⑥ CENTRE GEAR
⑪ RETAINER GEAR
⑦ PLANET GEAR
⑧ RING GEAR
① CAPSTAN MOTOR
⑩ CONNECTION GEAR
● DETENT ARM
2 CENTRE PULLY
5 CLUTCH DISK
4 DRIVE DISK
⑫ MAIN CAM GEAR
⑨ SUB CAM GEAR

Fig. 1-2

1.2 How to eject manually

When the electrical circuit is defective and the unloading and front unloading section don't work properly, it is possible to eject manually as follows.

- Disconnect the mains supply.
- Release change lever pos. no 122(2) by pushing it to arrow mark direction as shown in Fig. 1-3.
- Slowly turn the capstan motor counter clockwise until the clutch disk is locked.
  (Clutch Disk is locked once in one rotation).
- Release the change lever again when the clutch disk is locked.
- Repeat points (2) and (3) until the cassette is ejected.

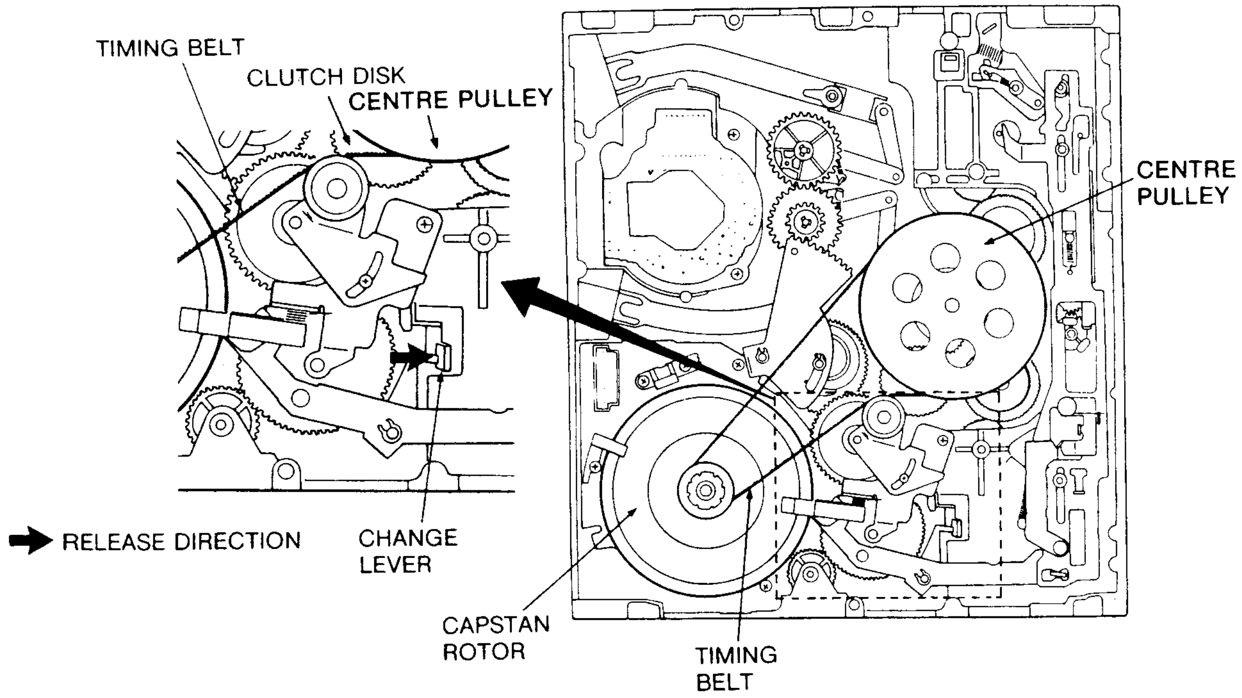

TIMING BELT
CLUTCH DISK
CENTRE PULLEY
CENTRE PULLEY
➡ RELEASE DIRECTION
CHANGE LEVER
CAPSTAN ROTOR
TIMING BELT

Fig. 1-3

1.3 How to place the Cassette compartment in the down condition without a cassette.

In the Cassette compartment up condition, the VCR can not be operated. To place the Cassette compartment in the down position without a cassette use the following procedure.

Method 1

- Remove the top case and front panel then, connect AC plug.
- First insert a ruler against the bottom right side of the cassette up unit so it lies over the cassette opener to keep it in the down condition as shown in Fig. 1-4.
- With the ruler in place, extend the left middle finger outside the cassette up unit to cover the hole in the cassette compartment top plate as shown in Fig. 1-4. while pressing the cassette holder unit into the loading condition with the left thumb.
- Hold the ruler and middle finger firmly in position until the cassette holder unit clears the locking tab of the side plate (L) and passes beyond the cassette reject slot of the side plate (R).
  After clearing the locking tab and the cassette reject slot, the cassette holder unit will move into the down position by itself.

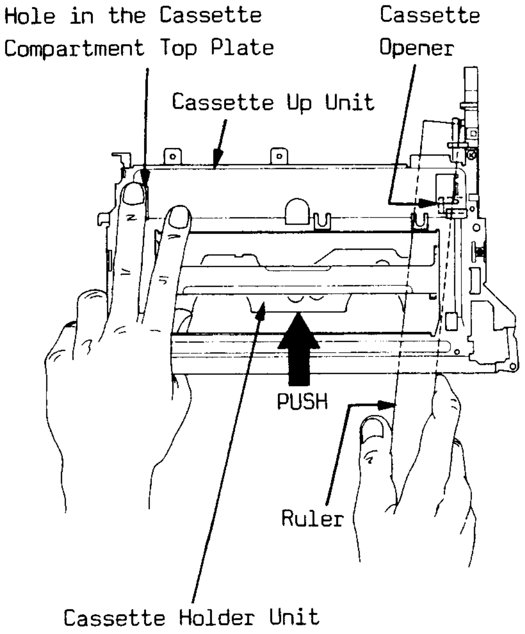

Hole in the Cassette Compartment Top Plate
Cassette Opener
Cassette Up Unit
PUSH
Ruler
Cassette Holder Unit

Fig. 1-4

Method 2

- Unplug the connector P1508 and remove the cassette compartment top plate by removing 2 screws (A) and screw (B), see Fig. 1-5.
- Remove the cassette holder unit by pushing wiper gear (R) pos. no. 232(3) unit until the 5 pins of cassette holder unit clear the slots of the side plates (L) and (R) as shown in Fig. 1-5.
- Connect AC plug.
- Push wiper gear (L) pos. no. 231(3) unit to place the unit in the cassette down condition (no cassette) as shown in Fig. 1-5.

Note:
If the cassette mechanism can not be placed in the casette-up condition when the EJECT button is pressed. First place finger through the hole in the left side of the chassis frame, as shown in box, Fig. 1-5, and push the wiper gear (L) unit up. Now push the EJECT button to EJECT.

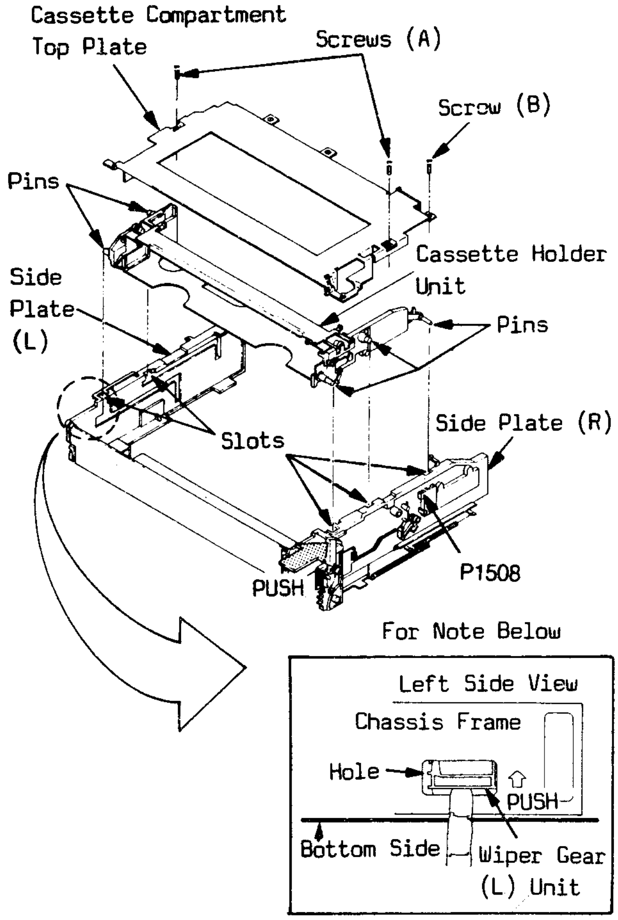

Cassette Compartment Top Plate
Screws (A)
Screw (B)
Pins
Cassette Holder Unit
Side Plate (L)
Pins
Slots
Side Plate (R)
PUSH
P1508
For Note Below
Left Side View
Chassis Frame
Hole
PUSH
Bottom Side
Wiper Gear (L) Unit

Fig. 1-5

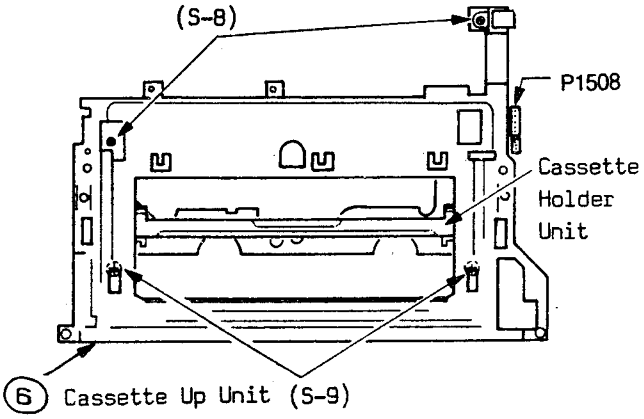

(S-8)
P1508
Cassette Holder Unit
⑥ Cassette Up Unit (S-9)

Fig. 1-6

1.4 How to remove the cassette compartiment

- Disconnect the mains supply
- Disconnect the plug from P1508
- Remove screws (S-8), see Fig. 1-6.
- Turn the capstan motor clockwise (located on the bottom side) until it will not turn any more.
- Now screws (S-9) can be removed. The complete cassette compartment can now be taken out.

1.5 Movement of mechanism without cassette compartment

Since the capstan motor works as a loading (threading) motor and front loading motor, phase relationship between cassette compartment and mechanism is important. Playback and FF/REW can not be performed after taking out the cassette compartment. However, checking the mechanical movement without cassette, it is possible as follows:

- Disconnect the mains supply.
- Take out the 5 pin flex cable from P1508 on the cassette compartment and remove the cassette compartment from chassis, see chapter 1.4.

- Turn the capstan motor clockwise until the clutch disk is locked. (Clutch disk is locked once in one rotation).
- Release the change lever again when the clutch disk is locked.

- Repeating above items will show the several stop positions of the mechanism from EJECT to PLAYBACK/REC, see also Fig. 1–7.

- Start from EJECT

1. Starting point for loading (threading).
2. Half loading position.
3. Main brake on (µC on deck control monitors the safety devices in the mechanism).
4. Soft brake on (WIND, REW position).
5. Pressure roller positioned.
6. Pressure roller fully down.
7. Pressure roller pressed to capstan shaft (PLAY, REC, CUE mode).

Note:

- Don't add too large torque to any gears to prevent breaking it
- When reinstalling the cassette compartment, refer to section 4.10. "Reinstallation of cassette compartment."
- It is not possible to opereate the mechanism from EJECT position.

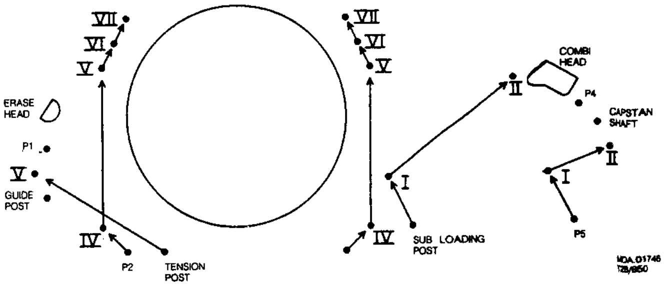

VII
VI
V
ERASE HEAD
P1
V
GUIDE POST
IV
P2
TENSION POST
VII
VI
V
IV
I
SUB LOADING POST
II
COMBI HEAD
P4
CAPSTAN SHAFT
II
I
P5
MDA.01746
T28/850

Fig. 1-7

1.6 Replacement of the scanning unit

Note:
Work with extreme care when removing or replacing scanning unit pos. no. 6(1), since there is very little clearance between scanning unit and chassis.
Do not touch the video head with bare hands during servicing.
Use nylon gloves (5322 395 94022).

- Place the set left side down.
- Remove grounding plate pos. no. 5(1) and the head amplifier, see Fig.1-8.
- Remove screws (B), see Fig. 1-9.
- Lift the scanning unit out of the chassis, and disconnect the plug from P1502.

Note:
When reinstalling the new scanning unit, fit the new scanning unit to the chassis by turning it clockwise. Confirm after reinstalling the scanning unit the "Gap position" adjustment, see the relevant service Manual.

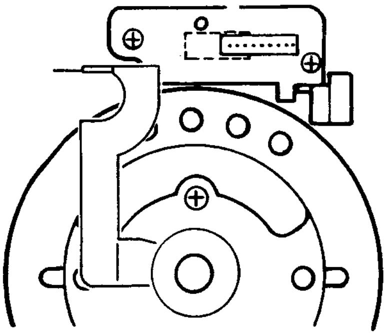


Fig. 1-8

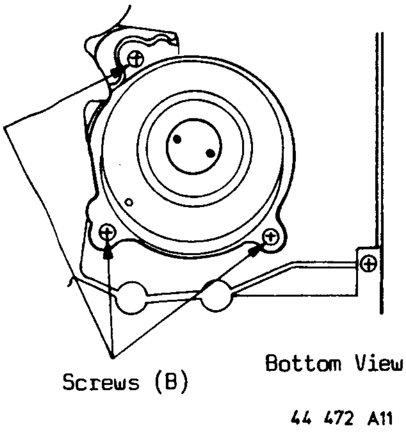


Fig. 1-9

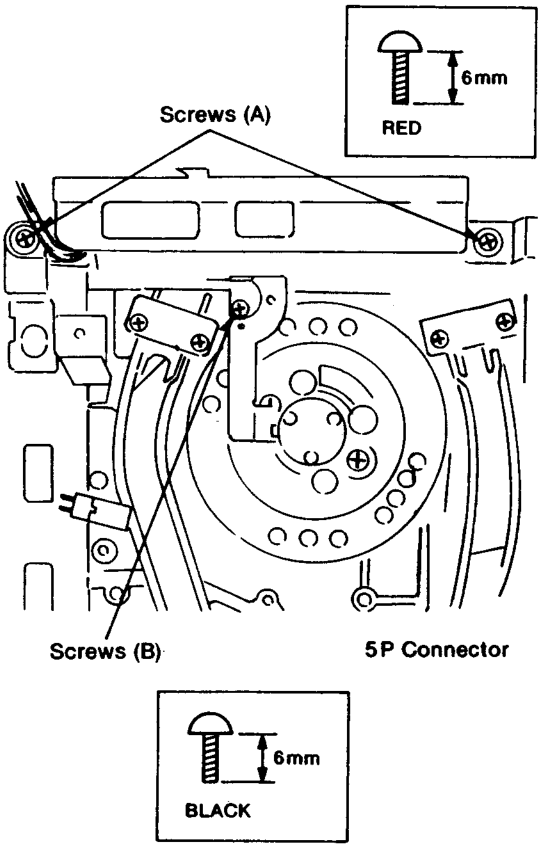


Fig. 1-10

- Remove screws (A) to take out the head amp, see Fig. 1-10.
- Remove screw (B) to take out the earth holder.
- Disconnect the 5P connector on the cylinder drive CBA.
- Remove the 3 screws (C) to take out the scanning unit (with the cylinder drive CBA) see Fig. 1-11.

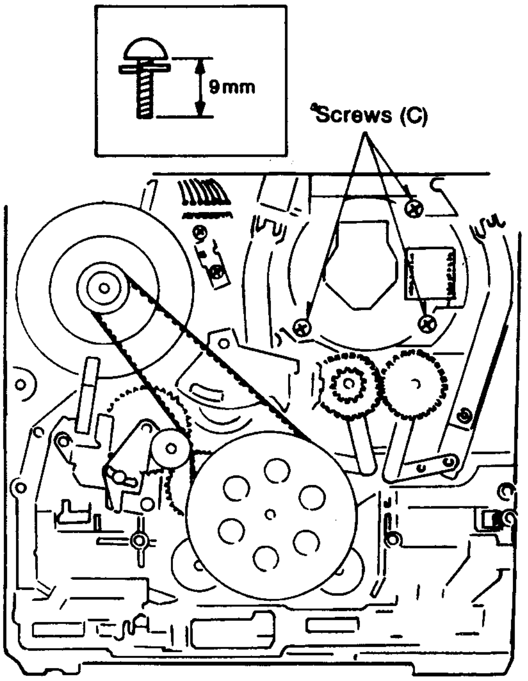


Fig. 1-11

1.7 Replacement of scanning unit (DMS 4/2)

Work with extreme care when removing or replacing the scanning unit. Do not touch the video heads during servicing.

note:
Since there is very little clearance between the scanning unit and the chassis, remove the scanning unit gently and carefully.

- Reinstall the new scanning unit, tighten the screws (C) and reinstall the earth holder with screw (B).
- Reconnect the head amplifier and 5P connector and tighten screws (A).

note:
After replacement, confirm the performance.
If any further maintenance is required, perform the nominal tape path adjustments (see chapter 2.8) and the 'Gap position' adjustment, see the relevant manual.

1.8 Replacement of the cylinder drive CBA (DMS 4/2)

- Remove the scanning unit refer to chapter 1.7.
- Place the scanning unit upside down.
- Unsolder the soldered portion (E) for shield case to take it out, see Fig. 1-12.
- Unsolder the soldered portion (D) indicated by an arrow mark (including the soldered portion inside the shield case).
- Remove screws (F) to remove the cylinder drive CBA.
- Reinstalling is the reverse way of above mentioned procedure.

1.9 Replacement of the upper cylinder (DM4/0, DM4/2)

The upper cylinder remover is useful to remove the upper cylinder easily, especially when it is too hard to remove by it hand.

- Remove 2 screws (A), then unsolder the soldered portions indicated by arrows as shown in Fig. 1-13.
- Set the screws of upper cylinder remover into holes (B) then tighten the screws of upper cylinder remover fully.
- Turn the handle of upper cylinder remover clockwise holding the upper cylinder firmly until it removes. (Upper cylinder is lifted up gradually during turning the handle).

Note:
- Work gently and carefully when removing the upper cylinder unit.
- Do not touch the video heads with bare hands during servicing. Use nylon gloves (5322 395 94022).
- **Do not remove the rotor (flywheel) of the scanning unit. The position of the flywheel is exactly adjusted in the factory.**

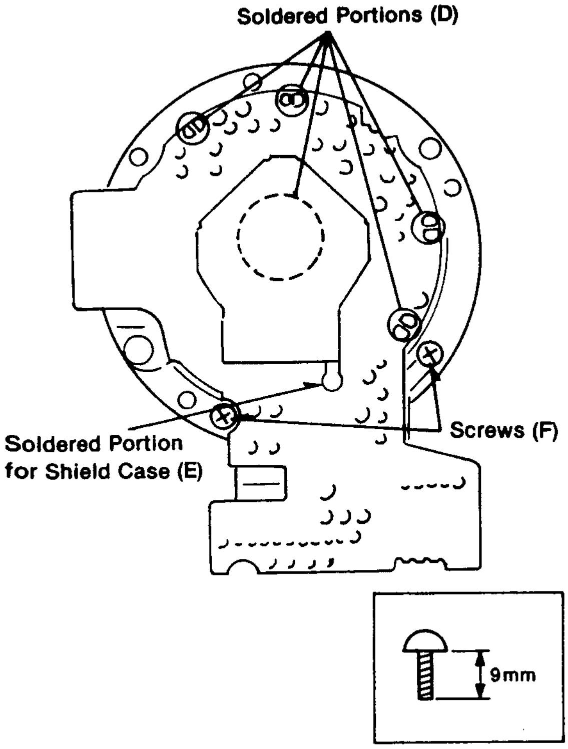

Soldered Portions (D)
Soldered Portion for Shield Case (E)
Screws (F)
9mm

Fig. 1-12

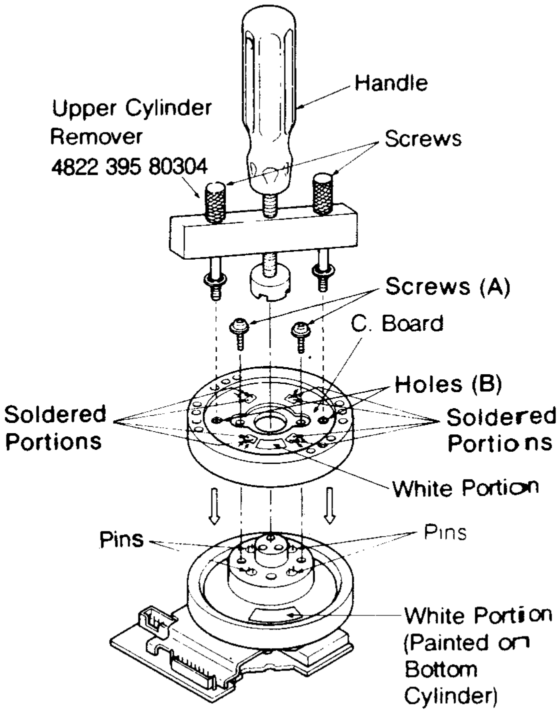

Upper Cylinder Remover 4822 395 80304
Handle
Screws
Screws (A)
C. Board
Holes (B)
Soldered Portions
Soldered Portions
White Portion
Pins
Pins
White Portion (Painted on Bottom Cylinder)

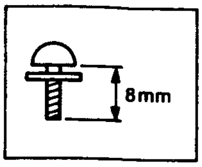
Fig. 1-13

Only for DM4/0, DM4/2 and DMS4/2

1.10 Replacement of the upper cylinder (DMS 4/2)

- Remove the two screws as shown in Fig. 1-14.
- Unsolder the soldered portion indicated by an arrow on the board.
- Remove the upper cylinder by lifting it upward.

Note:
Soldered portions can be removed easily by using solder sucking wire, etc.



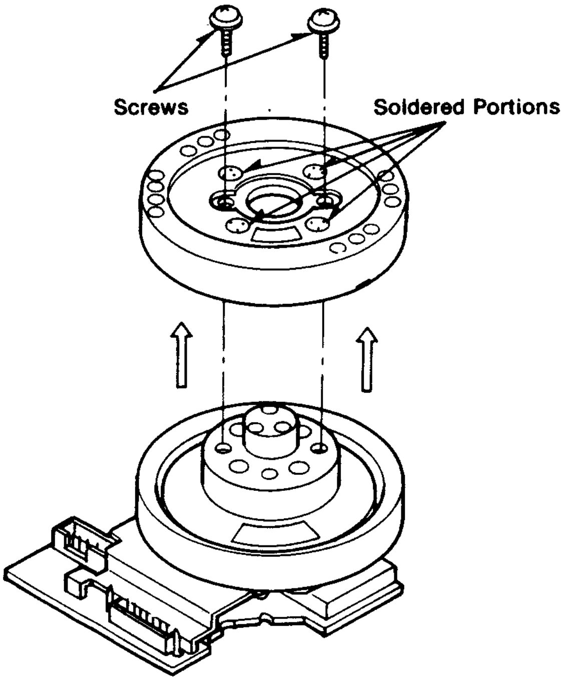

Screws
Soldered Portions

Fig. 1-14

- The upper cylinder unit can be reinstalled by reversing the removal procedure, however, when the upper cylinder is reinstalling, be extremely carefull so that the white portion of the cylinder board correctly matches the white portion of the bottom cylinder as shown in Fig. 1-15.

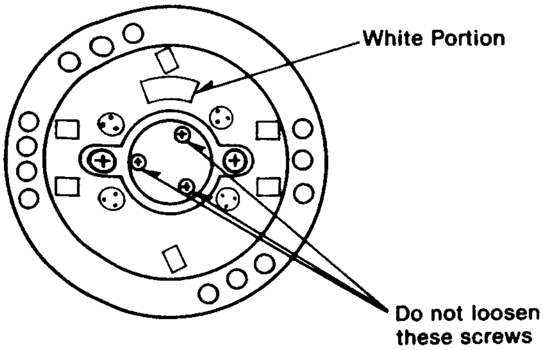

White Portion
Do not loosen these screws

Fig. 1-16

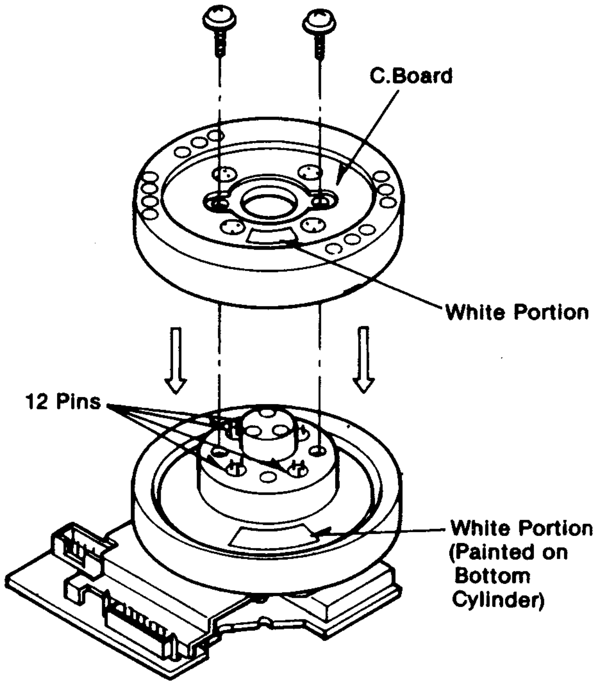

C.Board
White Portion
12 Pins
White Portion (Painted on Bottom Cylinder)

Fig. 1-15

Note:
- If the upper cylinder is reversely installed, no colour would appear when playing back a pre-record tape.
- **Do not loosen the 3 small screws on the top of the scanning unit, see Fig. 1-16.**
  If these screws are loosened the scanning unit is broken and can not be restored.

1.11 Replacement of the upper cylinder (DMP 4/0, DMP 4/2)

Demounting

- Push the locking pin (one is supplied with each service replacement upper cylinder) throughthe bottem hole of the scanner motor, line it up with the hole in the rotor by rotating the upper cylinder. Apply enough pressure to snap it home, see Fig. 1-17
- Loosen clamping screw A of the upper cylinder with 2 or 3 turns to the left.
- Carefully pull the upper cylinder from the drum motor. Do not touch the upper cylinder with bare hands, use nylon gloves (5322 395 94022).

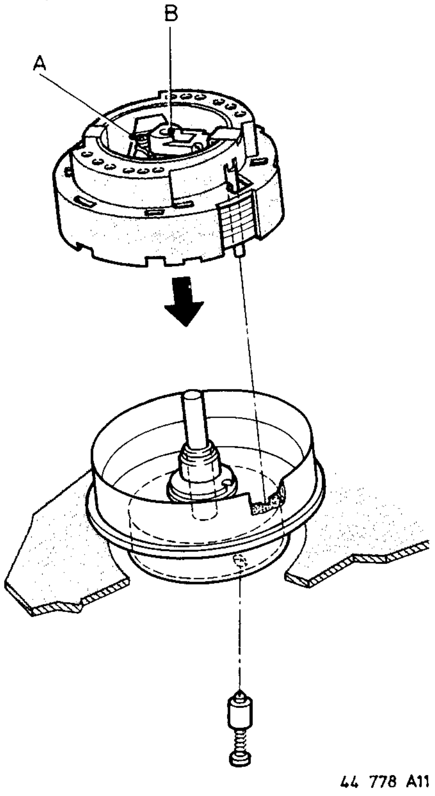


Fig.1-17

Mounting

- Before mounting the new upper cylinder, check that the axle of the drum motor is clean and undamaged (theaxle should be free from grease, do not touch it with bare hands).
- Position the upper cylinder on the scanner axle.

Attention:
The upper protective cover and the two 0.15 mm mylar foils remain on the upper cylinder during this operation, see Fig.xxxxx.

- Press down the upper cylinder in the centre B, see Fig.xxxx with a force of 1 N (centre of the protective cover).
- Turn fixing screw A clockwise with a torque of 20 Ncm.
- Pull protective cover from the upper cylinder.
- Pull out the two mylar foils at the side.
- Remove the rotor fixing pin.

Note:
After replacement of the upper cylinder the following checks have to be performed:

- Video switching point.
- Tape path inspection.
- Write current adjustment.

See for these adjustments the Service Manual of the relevant set.

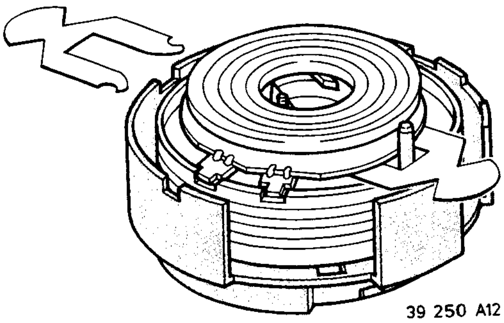


Fig. 1-18

1.12 Procedure for cleaning of upper cylinder unit

- Position the video head to permit access for cleaning and hold the upper cylinder to keep it from turning while cleaning, see Fig. 1-19.
- Gently rub the video head in direction of tape travel with a head cleaning stick.
- Repeat for the other video head.

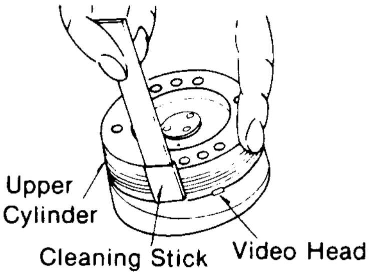


Fig. 1-19

1.13 How to use the disassembly chart

					REMOVAL		INSTALLATION
STEP No.	**START No.**	**PART**	**POS.**		**Fig. No.**	**REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER**	**ADJUSTMENT CONDITION**
1	1	D.D cylinder unit	6(1)	T	DM2	3(S-1)	See, chapter 1.6
2	2	A/C head unit	34(1)	T	DM1 DM3	(n-1),(W-1),*(P-1) *Wires at FE	(+) See, chapter 2.8B
4	4	Pinch cam cap	44(1)	T	DM1 DM4	*(L-1)	
5	4	Pressure roller unit	45(1)	T	DM1 DM4		(+) <Note 1>

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Order of steps in procedure
When reassembling, perform the step(s) in the reverse order.
These number are also used as the indentification (location) no. of parts in Figures DM (Deck Mechanism).

② Starting no. followed by corresponding part which can be removed at this stage.
See example below.
Example: A/C Head Unit can be removed without removing and other parts. But pressure roller pinch unit can be removed only after removing pinch cam cap (no. 4.).

③ Part to be removed or installed.

④ Pos. no. of the part in the exploded view. The number between brackets indicates the number of the exploded view.
(1) = Top view tapedeck
(2) = bottom view tapedeck
(3) = cassette compartment.

⑤ Location of part.
T = Top B = Bottom

⑥ Fig. no. showing procedure.

⑦ Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring	W = Washer
C = Cut Washer	R = Retaining Ring
N = Nut	S = Screw

* = Unhook, unlock or release
3 (S-1) = 3 Screws (S-1)

⑧ Adjustment information for installation.
= condition for adjustment
(+): Refer to Exploded Views for Lubrication information.

1.14 Connection of the flexible cable to trap connector P1504 and P1508

(Removal or installation of flexible cable)

1. Removal:
   On the trap connector, pull out both ends of the locking tab surrounding the cable end to release the trap connector.
   Then pull flexible cable out to remove as shown in Fig. 1-18.

2. Installation:
   - ★ Insert the end of the flexible cable into the trap connector so it lays smoothly across the slot.
   - ★ Press the middle of the cable firmly against the trap connector slot, and hold it there securely.
   - ★ Without pinching the cable press the locking tabs in against the trap connector until both ends snap into their locked positions.
   - ★ Pull lightly on the cable to check for positive connection.

Note:
Take care when removing or installing the flexible cable to prevent cable damage.

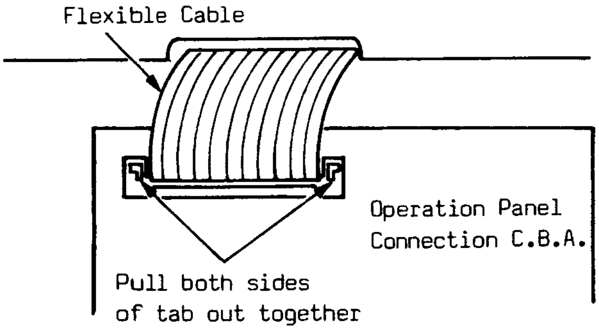
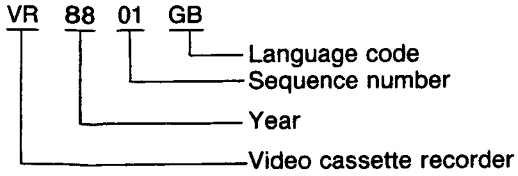

Flexible Cable
Operation Panel Connection C.B.A.
Pull both sides of tab out together

Fig. 1-18

1.15 Descripion of the system used for publishing modificationdata and supplements to the Service Manual

All modification data and supplements to the Service Manual are published by means of Service Information bulletins.
Each Service Information has a number, for example:


VR 88 01 GB
Language code
Sequence number
Year
Video cassette recorder

A service Information bulletin consists of a yellow front sheet, As the case may be followed by suplementary and/or replacement sheets.
Replacement sheets serve to replace existing sheets in the Service Manual. These sheets are indentified by an additional letter after the page number, for example 1a. Page 1a then takes the place of page 1.

Supplement sheets are inserted between the existing sheets in the Service manual. These sheets can be identified by an additional figure following the page number, for example 1-1.

Sheet 1-1 should be inserted after page 1.
Each Service Information is accompanied by an updated list of contents per page.
For each page added or each page replaced the list of contents indicates with which Service Information the relevant page has been published.

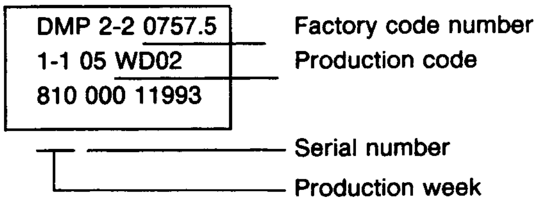
- **Description of the system by means of which modifications are indicated in the recorder**

The tape deck is provided with a sticker.
This sticker specifies a number of product data.
The meaning of this data will now be explained.

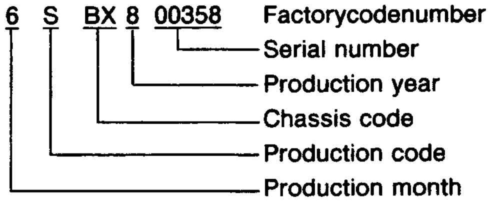
Tape deck
Location of the sticker: to the upside of the chassis between the reel tables.

Example

For tape deck DMP

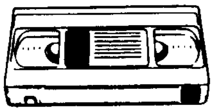

DMP 2-2 0757.5
1-1 05 WD02
810 000 11993
Factory code number
Production code
Serial number
Production week

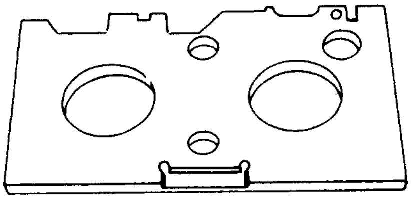
For tape deck DM or DMS

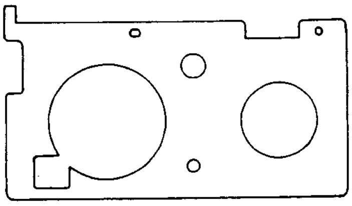

6 S BX 8 00358
Factorycodenumber
Serial number
Production year
Chassis code
Production code
Production month

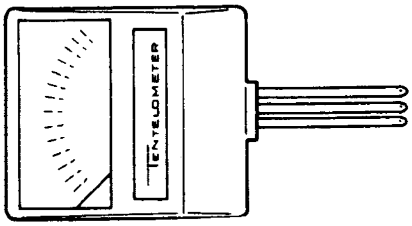
Note:
The production code and the serial number on the tape deck need not correspond to the production code and the serial number on the type plate of the set.

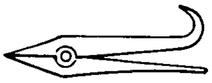
1.16 Auxiliary fixtures and tools for tape deck adjustments

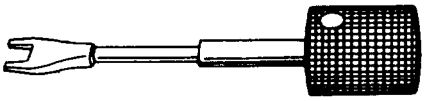

Alignment cassette
4822 397 30103

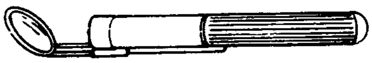

Post adjustment plate
4822 395 80184

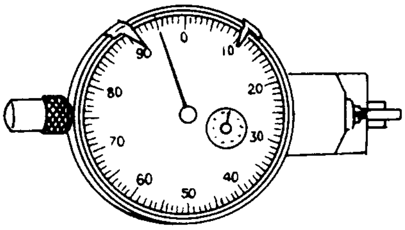

Tension post adj. fixture
4822 395 90587

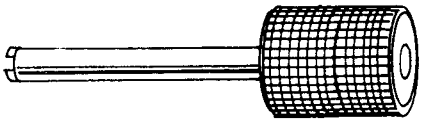

TENTELOMETER
Back tension meter
4822 395 90584

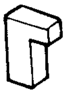

Retaining ring remover
4822 395 40055

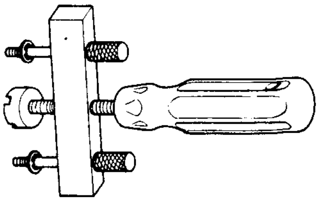

H. position screwdriver
4822 395 50274

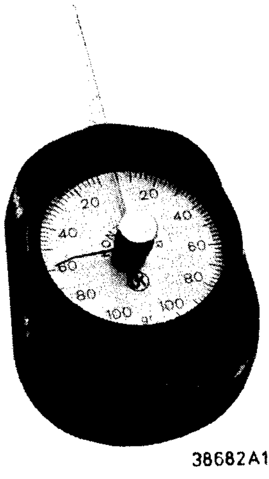

Check light
4822 395 90585


0
10
20
30
40
50
60
70
80
90
Micro meter
4822 395 90238

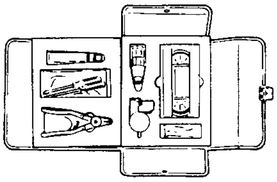

Post adjustment screwdriver
4822 395 50275


Height adjustment fixture
4822 395 90586


Upper cylinder remover
4822 395 80304


20
20
40
40
60
60
80
80
100
100
gr
38682A12

Spring pressure meter
5322 395 84011


Tool kit
4822 395 90253

44 787 A11

Center pin
4822 395 60044

Fig. 1-19

2. MECHANICAL ADJUSTMENT PROCEDURES

2.1 Tension adjustment of timing belt

(Equipment Required)	
Spring pressure meter	5322 395 84011
(Specification 40 ± 5g)	

1. Loosen screw (A) slightly by using a screwdriver.
2. Set the spring pressure meter 5322 395 84011 to the direction indicated by the arrow (B) as shown in Fig. 2-1.
3. Tighten screw (A) when the reading of the spring pressure meter 5322 395 84011 becomes within 40 ± 5g.

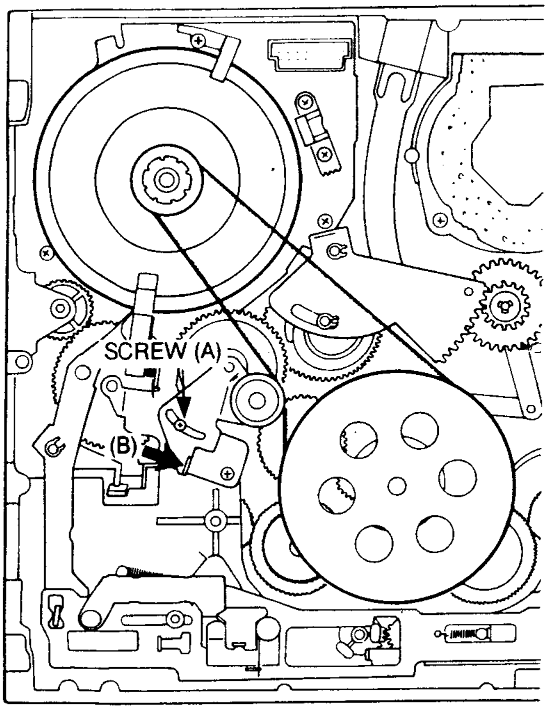


Fig. 2-1

2.2 Position adjustment of tension post pos. nr. 11(1)

(Equipment Required)	
Tension post adjustment plate	4822 395 90587
Hex. Wrench: 2mm	

- Disconnect the mains supply.
- Remove the cassette compartment and disconnect the flexible cable from P1508, see chapter 1.4.
- Turn the capstan motor clockwise while pushing change lever pos. no. 122(2) until loading is completed as shown in Fig. 2-2.
- Place the adjustment plate and insert the hex wrench into the hole of tension band fastener pos. no. 11(1), as shown in Fig. 2-3.
- Adjust the tension band fastener by using the hex wrench so that the outside edge of the tension post just touches the fixture of adjustment plate.
- After the adjustment, turn the capstan motor counter clockwise until the unloading is completed.

Note:
For assembling the cassette compartment, refer to chapter 4.10 "Reinstallation of cassette compartment".

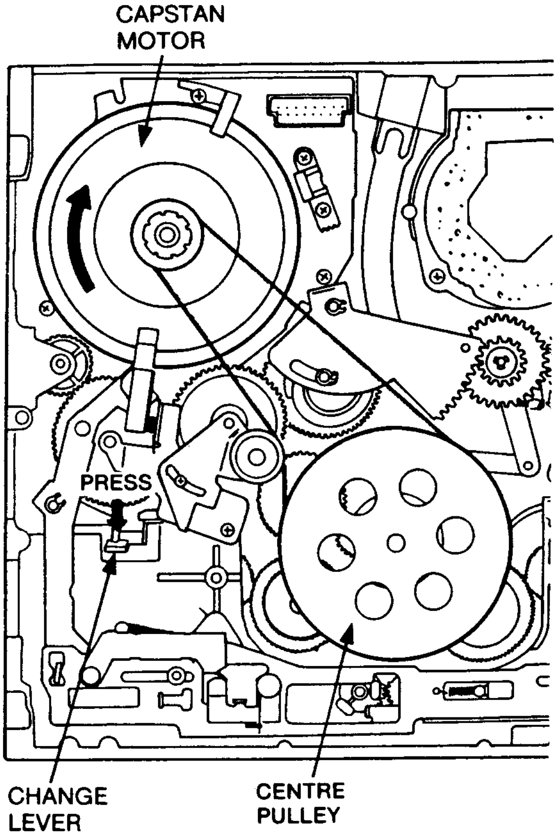


Fig. 2-2

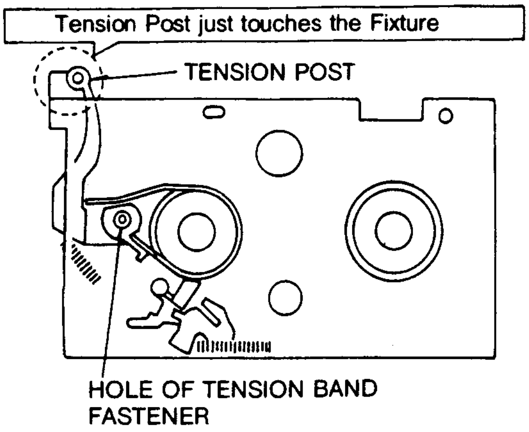

Tension Post just touches the Fixture
TENSION POST
HOLE OF TENSION BAND FASTENER

Fig. 2-3

2.3 Measurement and adjustment of the tape tension

(Equipment Required)

Back tension meter	4822 395 90584
VHS cassette (180 minutes tape)	
(Specification 20 ... 25g)	

1. Playback the cassette tape from the beginning and wait approx. 10 ... 20 seconds. until the tape movement has been stabilized.
2. Insert the back tension meter in tape path and measure the back tension to be within specification as shown in Fig. 2-4.

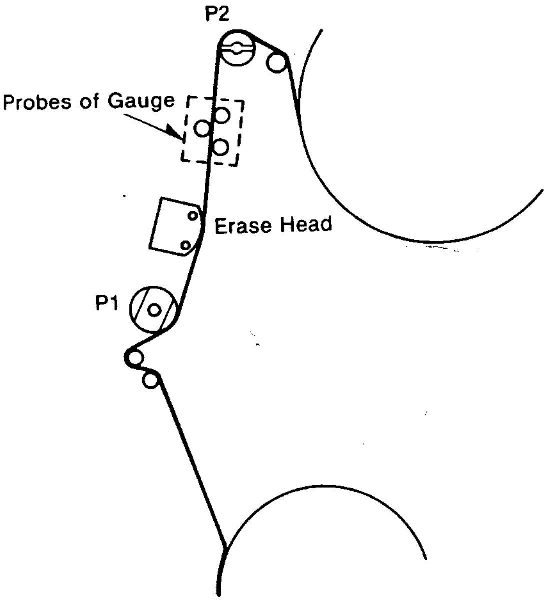
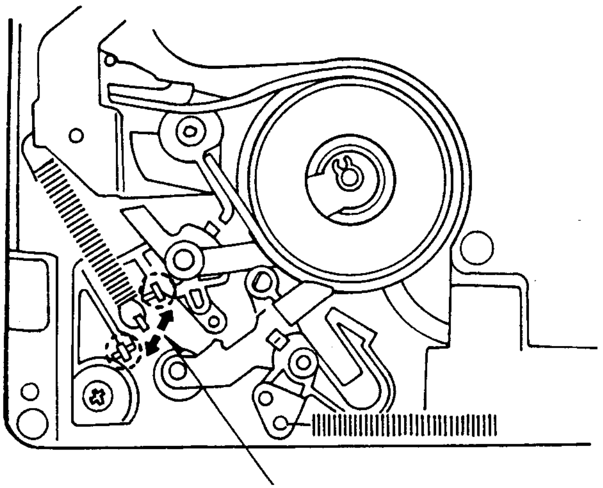


Fig. 2-4

Note:
- While measuring, make sure that the three probes of the meter are all in solid contact with the tape.
- As the tension meter is very sensitive, it is recommended to take 3 separate measurements.
- If the measurement is out of specification, re-position spring pos. no. 12(1) on the tension arm base teeth as shown in Fig. 2-5.
- Re-position tension spring toward front side to tighten tension, towad rear to loosen tension.
- Reïnstall a cassette and verify tension with the meter once again.



CHANGE THE SPRING NOTCH

Fig. 2-5

2.4 Height adjustment of the reel tables

(Equipment Required)

Post adjustment plate	4822 395 80184
Micrometer	4822 395 90238
(Specification 0 ... 0.2mm)	

- Remove the cassette compartment, see chapter 1.4.
- Place the post adjustment plate over the reel tables.
- Place the foot on the adjustment plate so that the foot of the meter touches the cut-out portion of the plate. Set the meter to zero "0" (reference setting) as shown in Fig. 2-6.

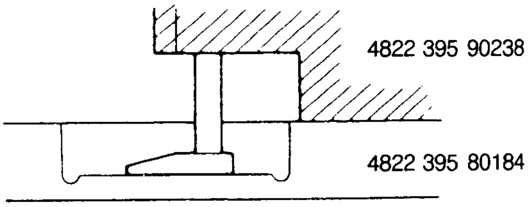


Fig. 2-6

- Measure the top surface of the reel table as shown in Fig. 2-7, and compare the difference against the result of the reference setting. Do the same for the other reel table.
- If the difference is more than 0.2mm (higher or lower), replace the poly washer located under the reel table with one of the appropriate thickness. Reel washers are available in thickness of 0.2 mm, 0.3mm and 0.5mm.

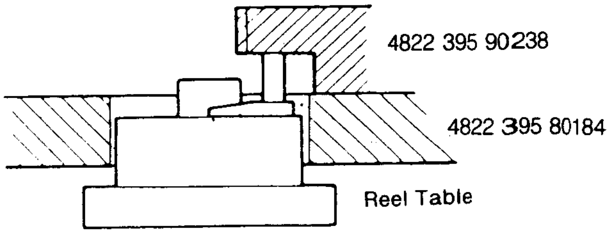


Fig. 2-7

Washer Thickness	Part No.
0.2mm	4822 532 52057
0.3mm	4822 532 52058
0.5mm	4822 532 52055

2.5 Adjustment of the capstan thrust gap

(Equipment Required)	
Micro meter	4822 395 90238
Height adjustment fixture	4822 395 90586
(Specification 0.5 ... 0.55mm)	

- Place the tape deck upside down.
- Turn the thrust adjust screw pos. no. 41(1) slightly until the capstan roter unit just touches the coil of the capstan stator unit, see Fig. 2-8

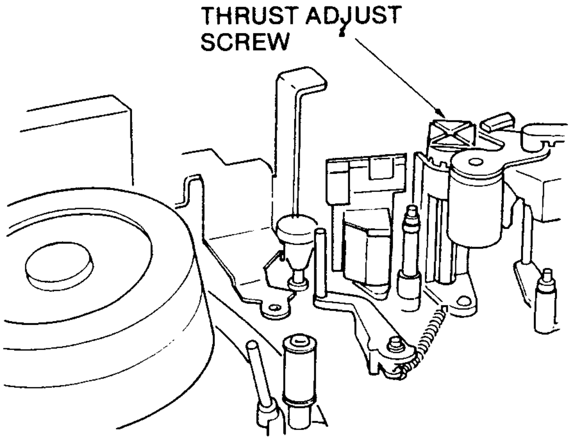

THRUST ADJUST SCREW

Fig. 2-8

- Set the height adjustment fixture on the capstan roter unit, see Fig. 2-9.
- Place the height fixture on the tape deck chassis and the foot on the longest side of the height fixture. Set the meter to "0" (reference position), see Fig. 2-9.
- Adjust thrust screw pos. no. 41(1) so that the thrust gap becomes 0.5 ... 0.55mm, see Fig. 2-10.

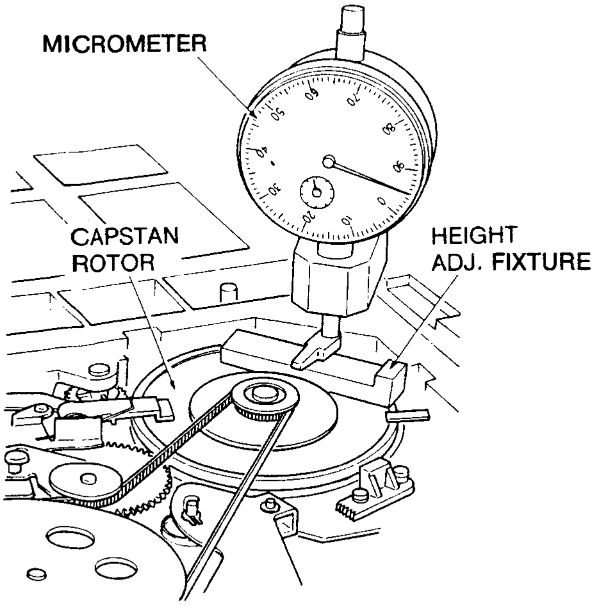

MICROMETER
CAPSTAN ROTOR
HEIGHT ADJ. FIXTURE

Fig. 2-9

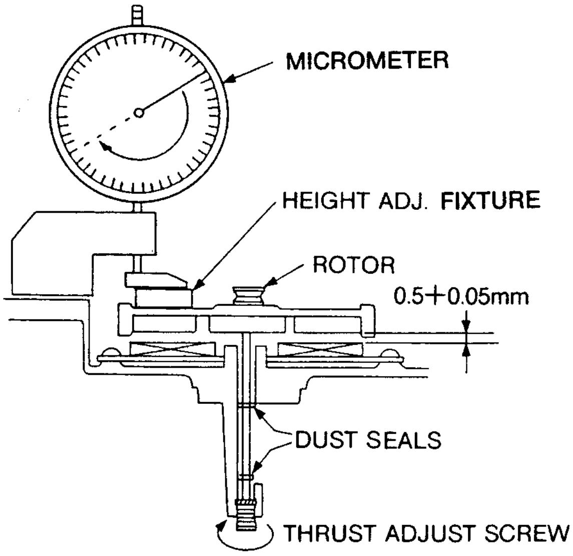

MICROMETER
HEIGHT ADJ. FIXTURE
ROTOR
0.5+0.05mm
DUST SEALS
THRUST ADJUST SCREW

Fig. 2-10

2.6 Height adjustment of tape guide posts P2 and P5

(Equipment Required)	
Post adjustment plate	4822 395 80184
Micro meter	4822 395 90238
Post adjustment screwdriver	4822 395 50275

- Remove the cassette compartment, see chapter 1.4.
- Place the post adjusmten plate over the reel tables. Confirm that the post adjustment plate is firmly seated as shown in Fig. 2-11.

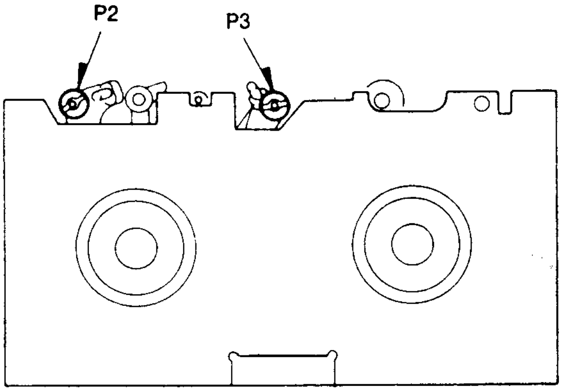


Fig. 2-11

- First lower all posts to match the height condition as shown in Fig. 2-12. The upper edge of the lower tape guide on each post should be below the bottom of the foot. Loosen lock screws located at lower position of post P2 & P3 using a lock screw wrench, then turn the posts with post adjustment screwdriver.

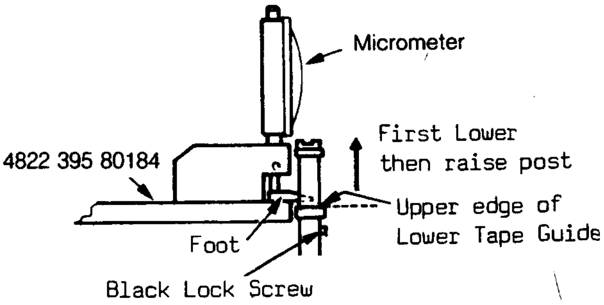

Micrometer
First Lower then raise post
4822 395 80184
Upper edge of Lower Tape Guide
Foot
Black Lock Screw

Fig. 2-12

- Place the fixture on the adjustment plate and fit the foot to the adjustment plate as shown in Fig. 2-12. (The foot of the fixture should be fully lowered till it touches the plate.)
- Set the fixture to '0' and slowly raise the post until it touches the foot. When the foot touches the post, it should fit as shown in Fig. 2-13.
  For adjustment of P2 and P3, use the post adjustment screwdriver.

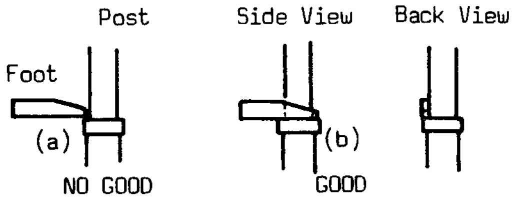


Fig. 2-13

Note:
After the adjustment, install the cassette compartment refering to chapter 4.10 "Reinstallation of cassette compartment".

2.7 Height adjustment of pull-out post P5

(Equipment Required)

Post adjustment plate	4822 395 80184
Micrometer	4822 395 90238

Nut driver 5.5 mm
specification (−0.06 + ± 0.01mm)

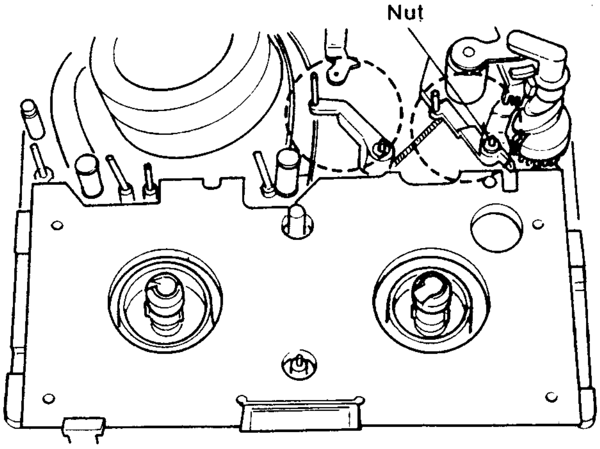


Fig. 2-14

Note:
Unless replacement or adjustment of this post is required, adjustment nut pos. no. 52(1) should not be performed.

- Remove the cassette compartment, see chapter 1.4.
- Place the post adjustment plate over the reel tables.
- Turn the capstan motor counter clockwise (loading direction) until the mechanical position becomes as shown in Fig. 2-14.
- Place the micrometer on the post adjustment plate and set the meter to zero "0" as shown in Fig. 2-15.
- Slightly raise the P5 post above the plate by turning the 5.5 mm Nut counter clockwise.
  Place the foot on the post as shown in Fig. 2-15.
- Now slowly turn the 5.5 mm Nut clockwise until the meter reads the specified height.
- After the adjustment, install the cassette compartment, (refer to chapter 4.10 "Reinstallation of cassette compartment").
- Play back a cassette tape and make sure that the edges of the tape are not curling at the bottom or top side of posts P1, P2, P3, P4 and pull out post P5 as shown in Fig. 2-16.
- If curling appears, readjust each post, except P1 and P4

Note:
The heights of posts P1 and P4 are exactly adjusted in the factory.
Do not disassemble there posts otherwise the moninal tape path will be completely unserviceable.

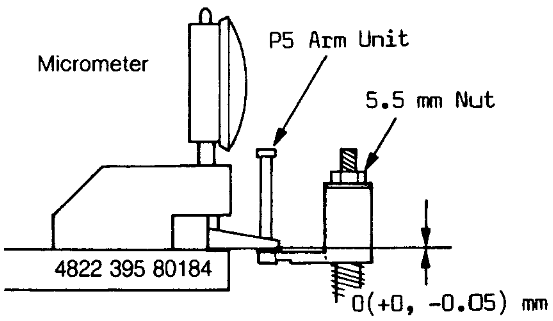


Fig. 2-15

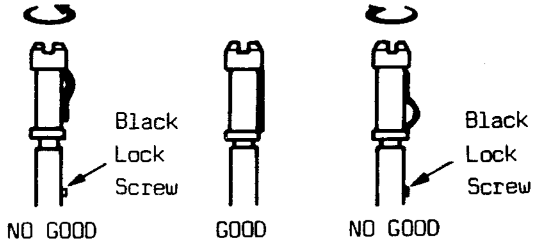


Fig. 2-16

2.8 Nominal tape path adjustment

Note:
Perform following procedures for nominal tape path adjustment. Do it correctly and smoothly.
A. Confirmation and adjustment of P2 and P3 posts.
B. Height adjustment of A/C head.
C. Tilt adjustment of A/C head.
D. Azimuth adjustment of A/C head.
E. Horizontal position of A/C head.
F. Confirmation of the tape path adjustment.

If the tape Path adjustment is not perfect, repeat the above procedures from A to F. Fig. 2-17 shows the position of the tape guide posts.

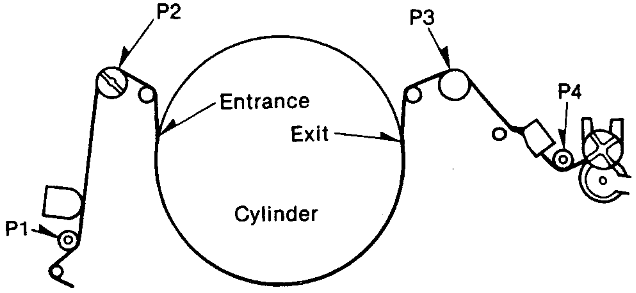


Fig. 2-17

A. confirmation and adjustment of P2 and P3 posts

(Equipment Required)

Alignment tape	4822 397 30103
Post adjustment screwdriver	4822 395 50275

- Switch the set off and on again
  (By switching the set off and on the tracking control will be adjusted to a nominal value).
- Connect the oscilloscope to the output of the head amp as shown in Fig. 2-18.
  For the connecting points make reference to the relevant service Manual.

  Note:
  To get a stable waveform of the head amp output on the oscilloscope, use the head switching pulse as a triggering signal as shown in fig. 2-18.

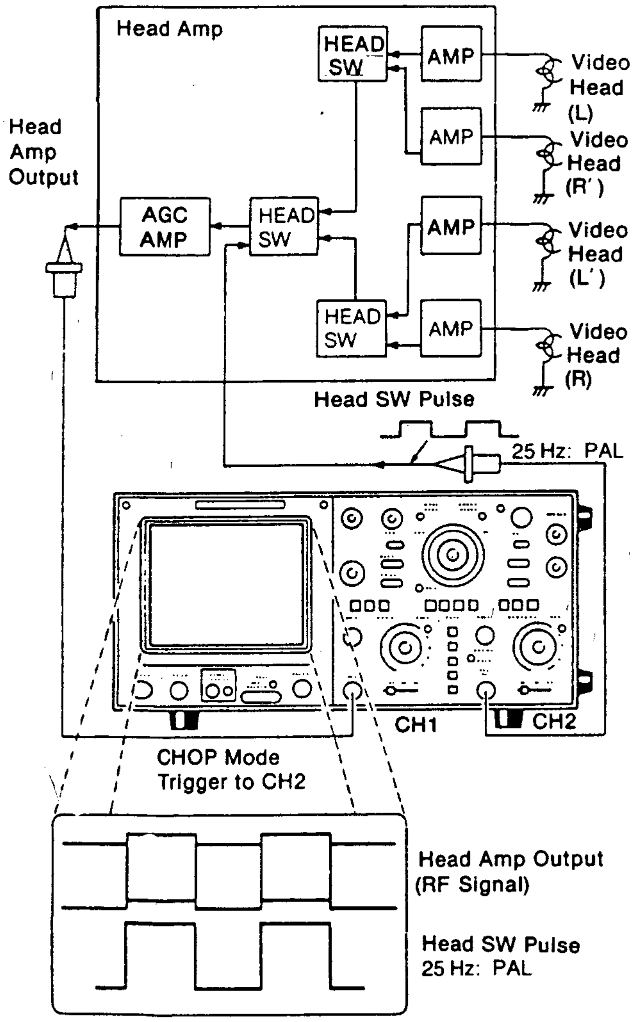

Head Amp
HEAD SW
AMP
Video Head (L)
AMP
Video Head (R')
Head Amp Output
AGC AMP
HEAD SW
AMP
Video Head (L')
HEAD SW
AMP
Video Head (R)
Head SW Pulse
25 Hz: PAL
CH1
CH2
CHOP Mode
Trigger to CH2
Head Amp Output (RF Signal)
Head SW Pulse
25 Hz: PAL

Fig. 2-18

44 463 B11

- Play back the alignment tape.
- If a FM envelope appears like example "A" or "B" in Fig. 2-19 then adjustment of the tape guide post is necessary (P2: entrance).
- Adjust tape guide post P2 with the post adjustment screwdriver so that the FM envelope waveform at the entrance portion becomes flat as shown in Fig. 2-19.
- If the FM envelope appears like example "D" or "E" in Fig. 2-20, then adjustment of the tape guide post (P3: Exit) is necessary.
- Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in Fig. 2-20.

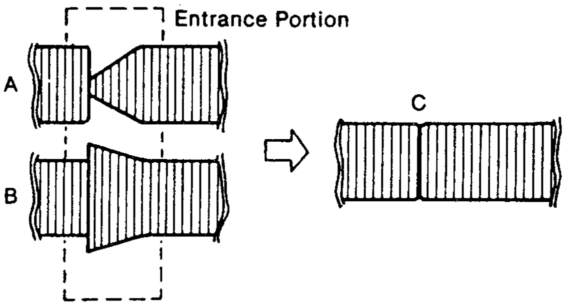

Entrance Portion
A
B
C

Fig. 2-19

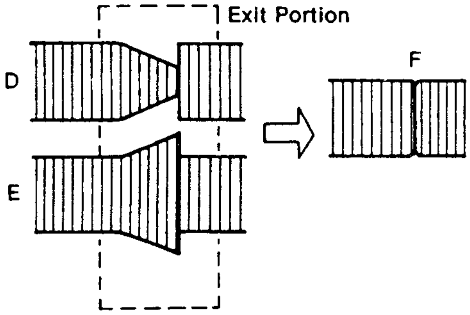

Exit Portion
D
E
F

Fig. 2-20

B. Height adjustment of A/C head

Note:
This procedure should be performed only when the A/C head is replaced.

(Equipment Required)

Check Light	4822 395 90185
Nut driver 7 mm	

- With the tape running, look at the lower edge of the control head by using the check light and check if the lower edge of the tape runs along the lower edge of the control head, see Fig. 2-21.
  If it doesn't, slightly turn nut C behind the A/C head (Fig. 2-21) to either lower or raise the A/C head so that the tape runs along the lower edge of the control head.
  Turn the nut C clockwise to lower the head, and counter-clockwise to raise it.

Note:
The mark on the A/C head indicates the lower edge. Scew marked (*) pressures the A/C head to the botton plate. Do not tighten the screw to fast otherwise the A/C head alignments can not be reached.

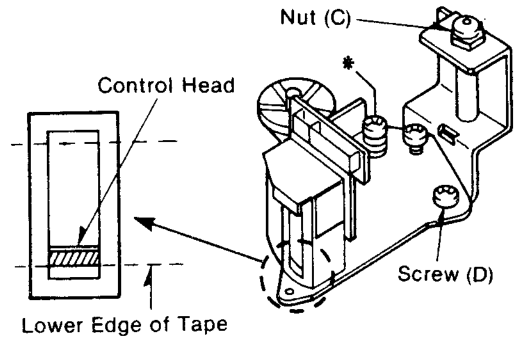

Nut (C)
*
Control Head
Screw (D)
Lower Edge of Tape

Fig. 2-21

44 456 A1

C. Tilt adjustment of A/C head

Note:
This procedure should be performed after replacing the A/C head or pressure roller pos. no. 45(1).

- Playback the beginning portion of a blank cassette tape and confirm that the tape runs between the lower and upper limiter of P4 post. If there is waving or curling in the lower edge or top edge of the tape, correct the tilt of the a/C head by turning screw B, see Fig. 2-22 located behind the A/C head.
  Fig. 2-23 shows the direction how the turn to correct curling.

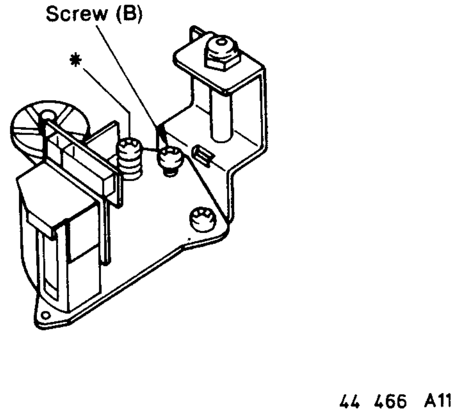


Fig. 2-22

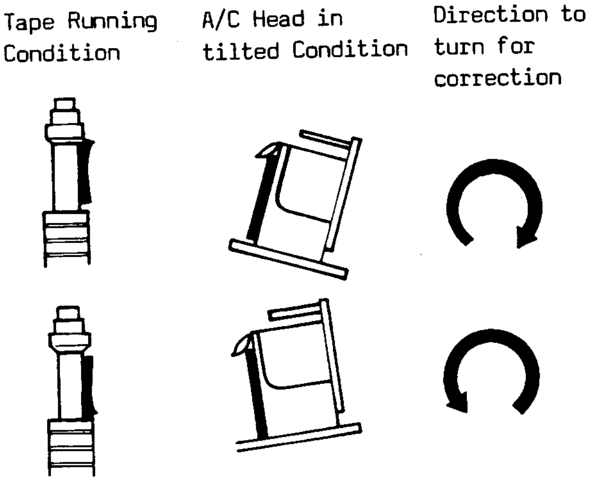

Tape Running Condition
A/C Head in tilted Condition
Direction to turn for correction

Fig. -23

Note:
After tilt adjustment of the A/C head, height adjustment of A/C head is required.

D. Azimuth adjustment of A/C head

Note:
This procedure should be performed only when the A/C head is replaced and posts height are readjusted.

(Equipment Required)

Alignment tape	4822 397 30103

- Connect the oscilloscope to the audio output on the rear panel.
- Play back the 2nd portion (normal audio 6KHz) of the alignment tape.
- Adjust screw D so that the output level becomes maximum, see Fig. 2-24

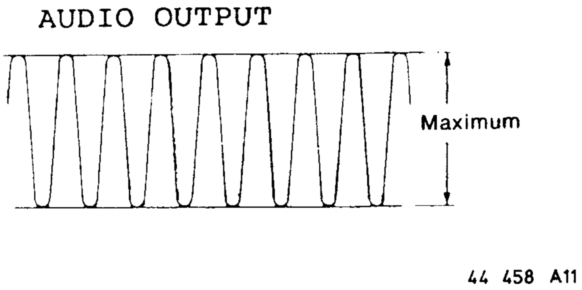


Fig. 2-24

E. Horizontal position adjustment of A/C head

Note:
THis procedure should be performed only when the A/C head is replaced, and after performing the tape path adjustment.

(Equipment Required)

H-Position adjustment screwdriver	4822 395 50274
Alignment tape	4822 397 30103

- Switch the set off and on again
  (By switching the set off and on the tracking control will be adjusted to a nominal value).
- Connect the oscilloscope to the output of the head amp as shown in Fig. 2-18.
  For the connecting points make reference to the relevant service Manual.
- Play back the alignment tape
- Adjust horizontal position screw pos. no. 36(1) of the A/C head, see Fig. 2-25 so that the RF signal becomes maximum, see Fig. 2-26.

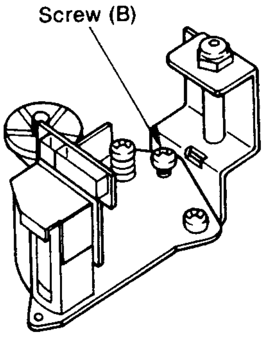


Fig. 2-25

F. Confirmation of the tape path adjustment.

- Switch the set off and on again to perform a nominal tracking position control.
- Connect the oscilloscope to the output of the head amplifier as shown in Fig. 2-18.
- The symmetrie of the FM envelope, can be checked after pressing the "TRACKING" button.
  The output level must be almost equal as shown in Fig. 2-26.
- If the FM envelope does not meet the specification ($V1/V \geqslant 0.7$; $V2/V \geqslant 0.8$) see Fig. 2-27, repeat above mentioned adjustments A to F.

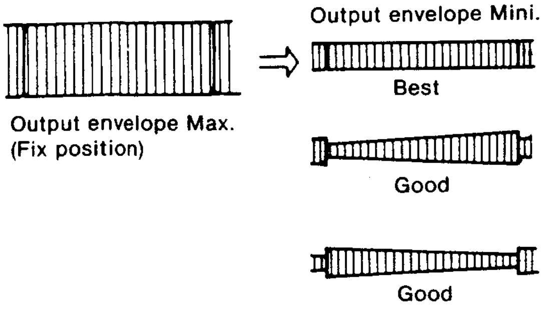
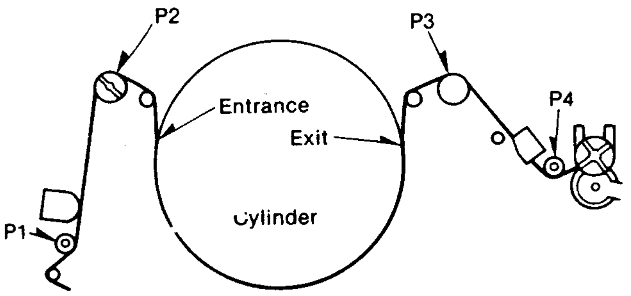
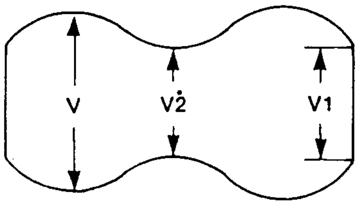

Output envelope Mini.
Best
Good
Good
Output envelope Max.
(Fix position)

Fig. 2-26


P2
P3
Entrance
Exit
P4
Cylinder
P1



$V1/V \geq 0.7$
$V2/V \geq 0.8$

Fig. 2-27

44 465 B11

2.9 Adjusment of FG head

(Equipment required)
Oscilloscoop
Feeler gauge 0.1-0.13 mm

- Place the unit upside down.
- Slightly loosen screws A, see Fig. 2-28.
- Adjust the FG head until the distance between capstan rotor and Fb head is 0.1-0.13 mm.
- Tighten screws A.
- Confirm that the FG head output level is more than 10 mVpp.
  If the level is not more than 10 mVpp, re-adjust the FG head gap so that the FG head output level is more than 10 mVpp

Note:
Do not touch the outside circumference of the rotor surface with any tool and keep magnetic material away from the rotor magnet (especially metal particles).

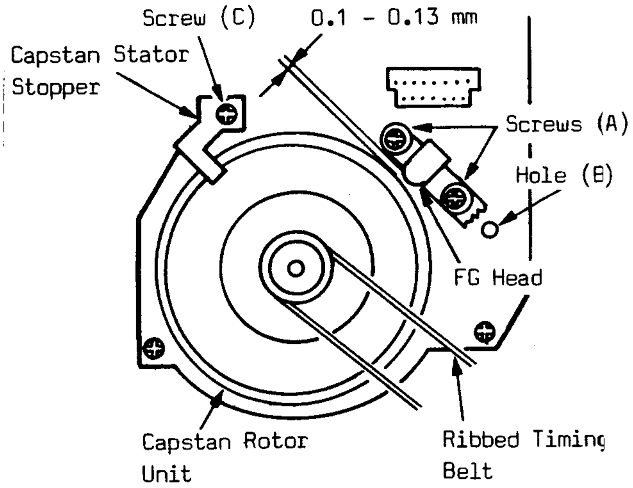

Screw (C)
0.1 - 0.13 mm
Capstan Stator
Stopper
Screws (A)
Hole (B)
FG Head
Capstan Rotor
Unit
Ribbed Timing
Belt

Fig. 2-28

3. DISASSEMBLY CHART AND PROCEDURES

3.1 Chassis

This procedure starts with the condition that the cabinet parts, front C.B.A., Cassette and head Amp assy have been removed.
Also, all the following procedures for adjustment and part replacement should be performed in STOP mode. When reassembling, perform the step(s) in the reserve order.

STEP No.	START No.	PART	POS.		REMOVAL		INSTALLATION
					Fig. No.	REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER	ADJUSTMENT CONDITION
1	1	D.D scanning unit	6(1)	T	DM2	3(S-1)	See, chapter 1.6
2	2	A/C head unit	34(1)	T	DM1 DM3	(N-1), *(P-1) *Wires at FE	(+) See, chapter 2.8B
3	3	Sub loading arm unit	39(1)	T	DM1	(R-1),*(P-2)	(+) See, Fig. DM17
4	4	Pinch cam cap	44(1)	T	DM1 DM4	*(L-1)	
5	4	Pressure roller unit	45(1)	T	DM1 DM4		(+) <Note 1>
6	5	Pinch cam	51(1)	T	DM1 DM4		See, chapter 4.9
7	6	Pinch speed down gear	64(1)	T	DM1 DM4	(C-8)	(+) See, chapter 4.2
8	8	Connection gear	65(1)	T	DM1 DM4	(C-1) <note 2>	(+) See, chapter 4.7
9	9	Main brake units	24(1) 27(1)	T	DM1 DM5	2(C-2),*2(P-3),*(P-4) <note 2>	(+) See, setting condition in Fig. DM5
10	9	Tension band unit	13(1)	T	DM1 DM6	*(P-5),*(L-2)	(+) See, chapter 2.2
11	11	Takeup reel table	71(1)	T	DM1	(R-2)	<note 5> (+) See, chapter 2.4
12	10	Supply reel table	14(1)	T	DM1	(R-3)	
13	5	P5 sector gear	50(1)	T	DM1 DM7	*(L-3)	See, chapter 4.8
14	13	P5 unit	53(1)	T	DM1 DM7	(N-2),(W-2),*(P-6)	(+) Stop (half loading)<note 3> and see chapter 2.7
15	15	SS brake unit	105(2)	B	DM2	(C-4)	<note 2>
16	16	Tension roller unit	108(2)	B	DM2	(S-2)	
17	16	Brake base	107(2)	B	DM2	(S-3)	
18	18	Cam follower arm unit	109(2)	B	DM2	(R-5)	<note 4>
19	18	Main/sub lever	103(2) 104(2)	B	DM2 DM9	2(C-3),2(W-4)	See, setting condition in Fig. DM9
20	19	Center pulley unit	137(2)	B	DM2 DM10	(C-4),(W-5) Ribbed timing belt <note 2>	(+) See, Fig. DM10
21	20	Clutch disk ass'y	116(2)	B	DM2 DM11	(C-5) <note 2>	See, chapter 4.4
22	20	Stopper base	131(2)	B	DM12	(S-4)	
23	17	Centre gear	113(2)	B	DM2 DM11	(C-6)	(+) See, chapters 4.4
24	17,18	Main cam gear	111(2)	B	DM2 DM11	(R-6)	(+) See, chapters 4.2 and 4.3
25	24	Detent arm	110(2)	B	DM11		(+)
26	25	Sub cam gear	112(2)	B	DM4 DM11		(+) See, chapter 4.1

					REMOVAL		INSTALLATION
STEP No.	START No.	PART	POS.		Fig. No.	REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER	ADJUSTMENT CONDITION
27	26	Release lever unit	125(2)	B	DM13	(S-5)	See, setting condition in Fig. DM13
28	27	Intermediate gear	146(2)	B	DM14	(C-7),(W-6)	
29	28,30	Drive disk	119(2)	B	DM14		
30	30	Sector gear unit	141(2)	B	DM2 DM11	2 (R-6)	(+) See, chapter 4.6 <note 7>
31	30,23	Loading cam gear	142(2)	B	DM11		(+) See chapter 4.3 <note 7>
32	31	Play arm unit	147(2)	B	DM14		
33	32	Play control arm	144(2)	B	DM14	*(L-4)	
34	31	Retainer gear	114(2)	B	DM11		(+) See, chapter 4.3
35	33	Ring gear	120(2)	B	DM11		(+) See, chapter 4.1
36	30,20	Loading arm-S unit	145(2)	B	DM2 Dm11	*(L-5)	(+) See, chapter 4.6
37	30,20	Loading arm-T unit	140(2)	B	DM2 DM11	*(L-6)	
38	12	Tension arm base unit	18(1)	T	DM1 DM2	(S-6), *(L-7)	(+) See, chapter 2.2
39	7	Housing unit	72(1)	T	DM1	3(S-7)	(+)
40	39,3	Flex C.B.A.		T	DM1 DM15	3(S-8) *Connection	
41	6	Mode switch	55(1)	T	DM1	(S-9) *Connections	See, chapter 4, 8
42	40	Shield plate	56(1)	T	DM15		
43	43	Solenoid unit	66(1)	T	DM16	(S-10), *Connections	
44	43	Solenoid lever unit	68(1)	T	DM16	*(L-8)	(+)
45	45	Post stopper (L,R)	60(1)	T	DM1	4(S-11)	<note 6>
46	45,36	Inclined base unit (S)	58(1)	T	DM1		(+) See chapter 2.6
47	45,37	Inclined base unit (T)	62(1)	T	DM1		

List of Abbreviations:

C.B.A. = Circuit Board Assembly
T = Top; B = Bottom
(R-1) = Retaining Ring(R-1);
(W-1) = Washer (W-1);
(N-1) = Nut (N-1);
(P-1) = Spring (P-1);
2(S-2) = 2 Screws (S-2);
(L-1) = locking Tab (L-1)
(S-1) = Screw (S-1);
(C-1) = Cut Washer (C-1);
(+): Refer to Exploded Views for Lubrication information.

TOP VIEW

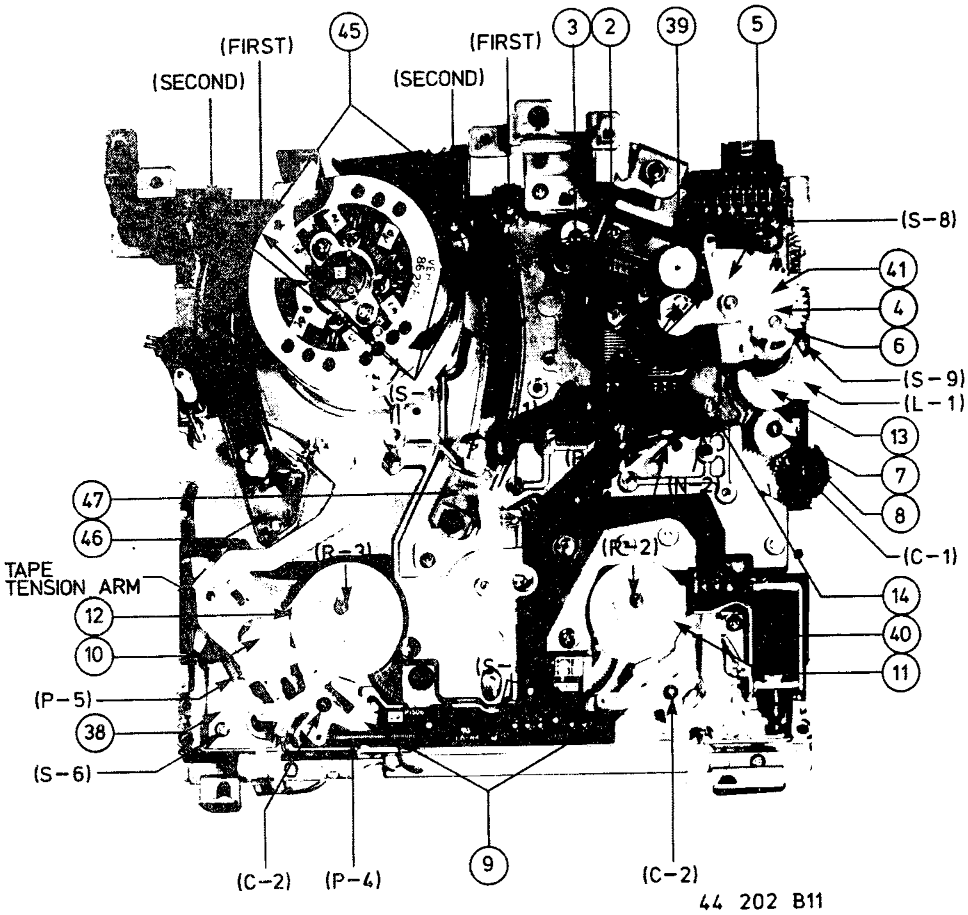

(SECOND)
(FIRST)
45
(SECOND)
(FIRST)
3
2
39
5
(S-8)
41
4
6
(S-9)
(L-1)
13
7
8
(C-1)
14
40
11
(S-1)
(R-3)
(R-2)
47
46
TAPE TENSION ARM
12
10
(P-5)
38
(S-6)
(C-2)
(P-4)
9
(C-2)
44 202 B11

Fig. DM1

BOTTOM VIEW

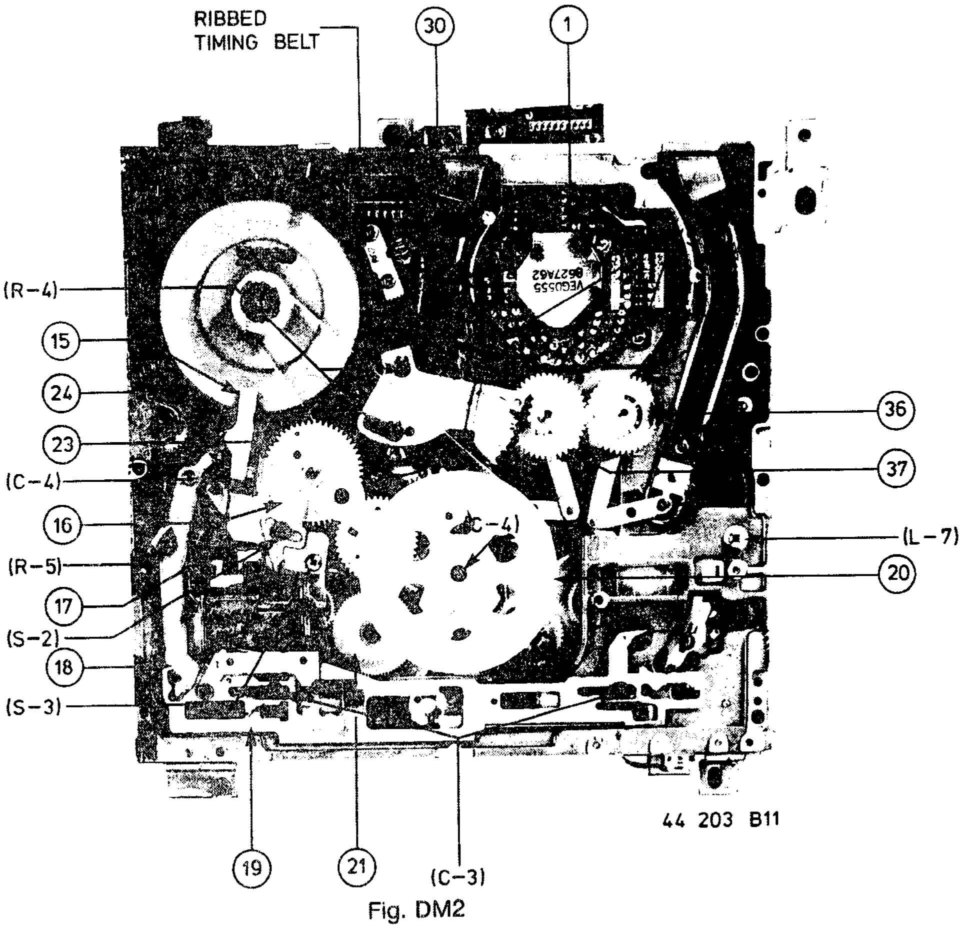

RIBBED TIMING BELT
30
1
(R-4)
15
24
23
(C-4)
16
(R-5)
17
(S-2)
18
(S-3)
(C-4)
36
37
(L-7)
20
19
21
(C-3)
44 203 B11

Fig. DM2

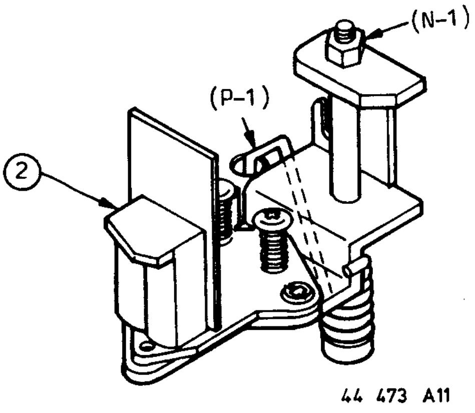

(N-1)
(P-1)
②
44 473 A11

Fig. DM3

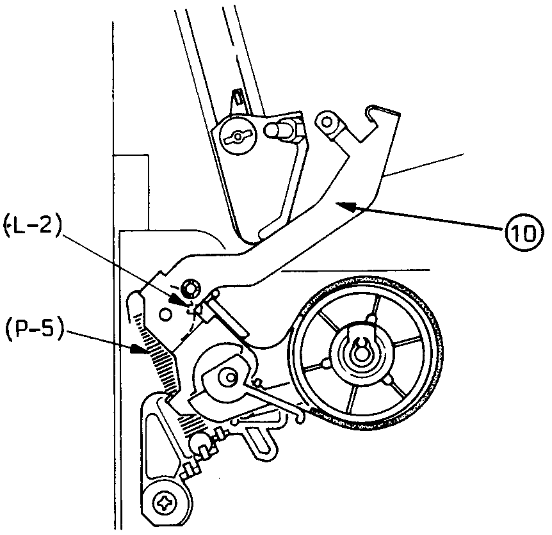


Fig. DM6

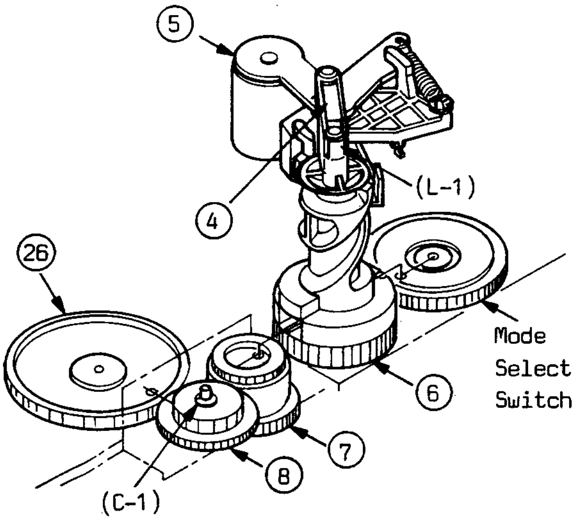

⑤
(L-1)
④
㉖
Mode
Select
Switch
⑥
⑦
⑧
(C-1)

Fig. DM4

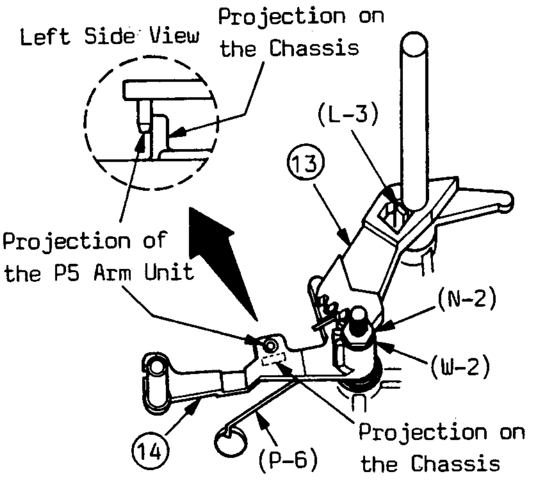

Left Side View
Projection on
the Chassis
(L-3)
⑬
Projection of
the P5 Arm Unit
(N-2)
(W-2)
⑭
(P-6)
Projection on
the Chassis

Fig. DM7

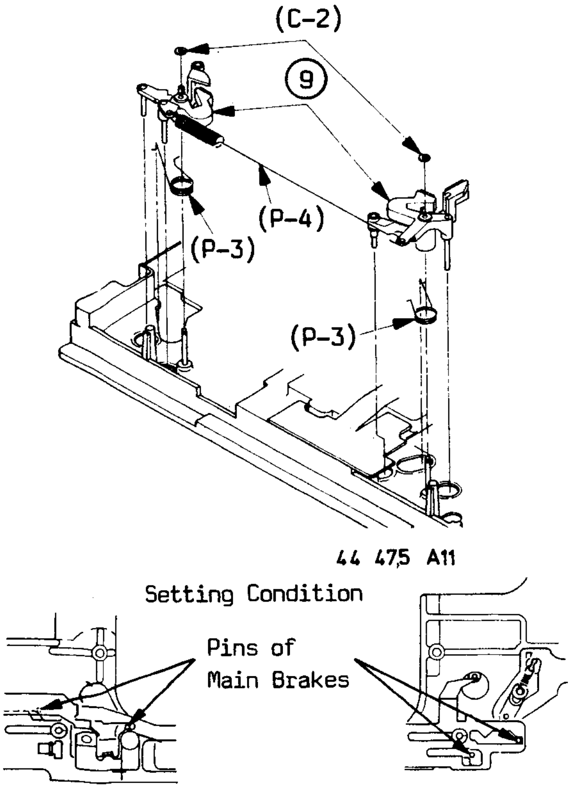

(C-2)
⑨
(P-4)
(P-3)
(P-3)
44 475 A11
Setting Condition
Pins of
Main Brakes

Fig. DM5

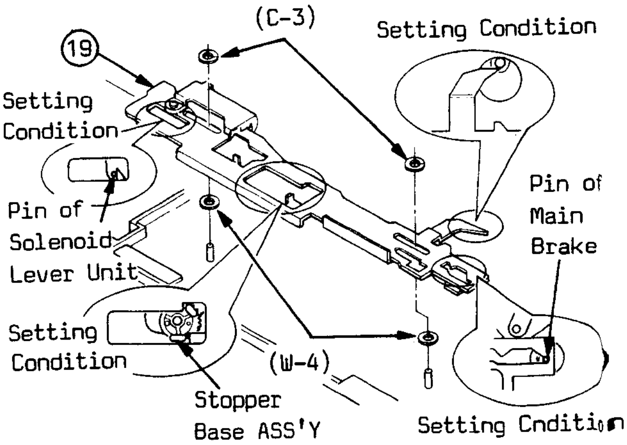

(C-3)
Setting Condition
⑲
Setting
Condition
Pin of
Solenoid
Lever Unit
Pin of
Main
Brake
Setting
Condition
(W-4)
Stopper
Base ASS'Y
Setting Cndition

Fig. DM9

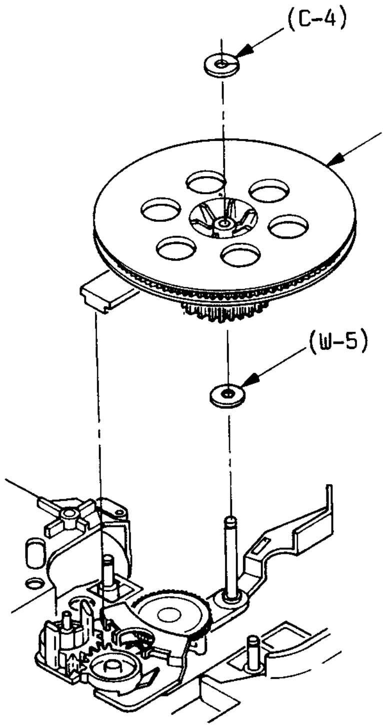


Fig. DM10

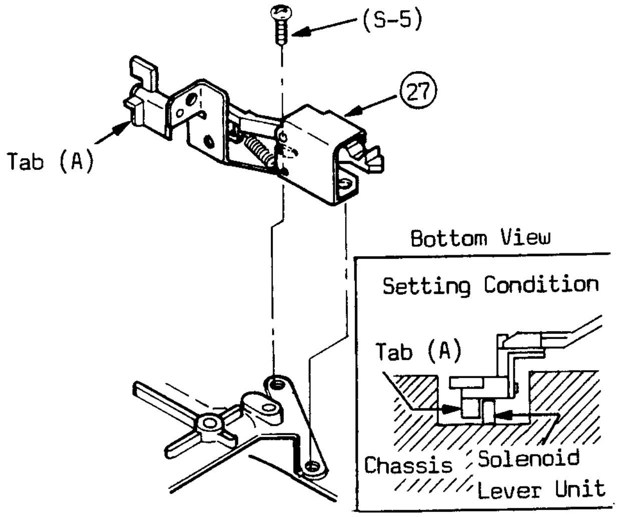
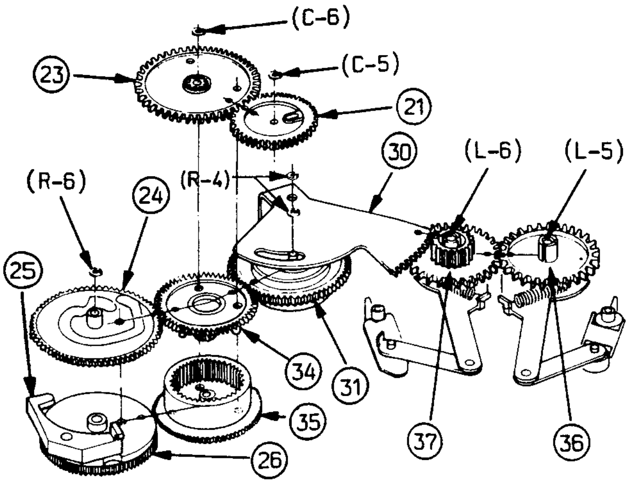

(S-5)
27
Tab (A)
Bottom View
Setting Condition
Tab (A)
Chassis
Solenoid
Lever Unit

Fig. DM13


(C-6)
23
(C-5)
21
30
(L-6)
(L-5)
(R-6)
24
(R-4)
25
34
31
35
26
37
36

44 480 A11

Fig. DM11

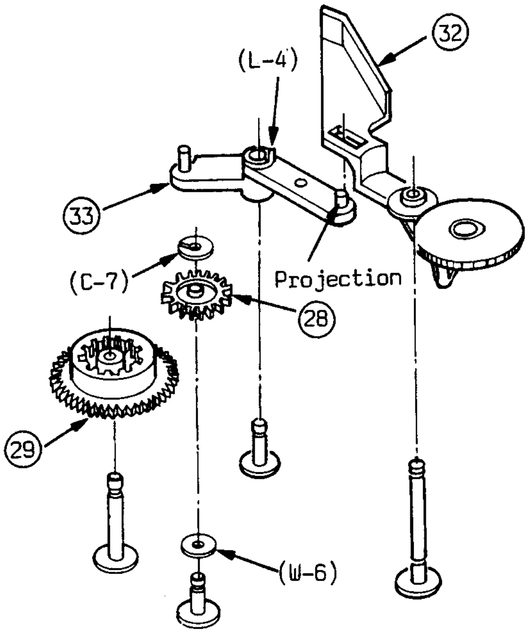

32
(L-4)
33
(C-7)
Projection
28
29
(W-6)

Fig. DM14

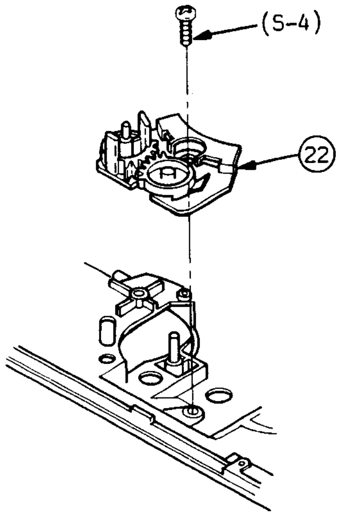


Fig. DM12

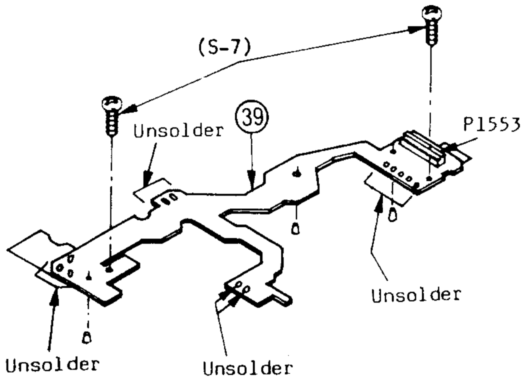

(S-7)
Unsolder
39
P1553
Unsolder
Unsolder
Unsolder

Fig. DM15

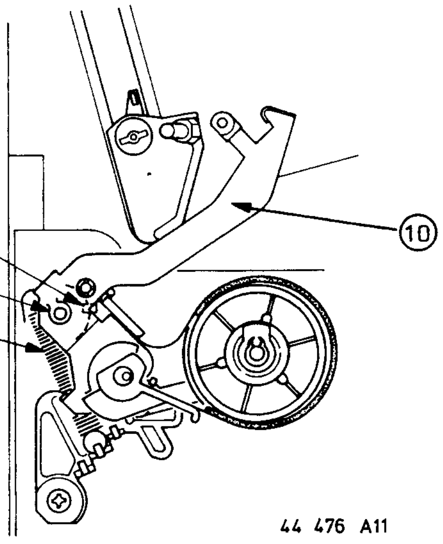

(L-2)
(R-5)
(P-5)
10
44 476 A11

Fig. DM17

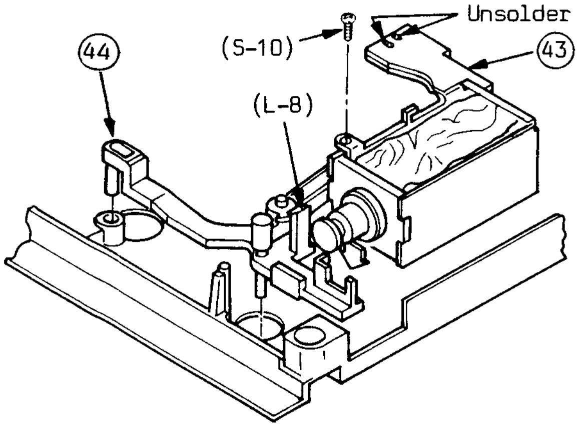

Unsolder
44
(S-10)
43
(L-8)

Fig. DM16

Reference notes in the disassembly chart:

1. Wiggle it sideways to proprly seat the pressure roller arm unit.
2. Cut washers are not reuseable.
   If removed, install a new one.
3. Install the P5 arm unit so that the projection of the P5 arm unit seats in front of the projection on the chassis as shown in Fig. DM7.
4. Install the cam follower arm unit so that the pin on the cam follower meets the inner slot of the main cam gear.
5. When reinstalling the supply and take-up reel tables, clean the rotating surface of them with a soft cloth.
6. When reinstalling the V stopper (L,R), fit the V stopper (L,R) to the chassis by turning it clockwise.
   And then, tighten the screws in order indicated in the diagram. (refer to Fig. DM1)
7. Ensure the tape tension arm is positioned as shown in Fig. DM1 for STOP mode.

3.1 CASSETTE COMPARTMENT

A. Right Side

First, remove the cassette compartment from chassis.
This procedure starts with the condition that the cassete compartment top plate and cassette holder unit have been removed. When reassembling, perform the step(s) in the reverse order.

					REMOVAL		INSTALLATION
STEP No.	**START No.**	**PART**	**POS.**		**Fig. No.**	**REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER**	**ADJUSTMENT CONDITION**
1	1	Cassette Guide -R-	234(3)	R	DA1	*3(L-1)	
2	2	Sub wiper arm -R-	232(3)	R	DA1	*Sub wiper Spring -R- *(L-2)	
3	3	Slider switch unit	221(3)	R	DA1	*3(L-3)	Align the movable projection (A) and (B)
4	4	Down support lever	222(3)	R	DA1	*(L-4)	
5	1,2,3	Rack Ass'y	224(3)	R	DA1		(+) Align the Triangle Marks

List of Abbreviations:
R = Right; 3(L-1) = Locking Clip (L-1)
(+): Refer to Exploded View for Lubrication information.

B. Left Side

					REMOVAL		INSTALLATION
STEP No.	**START No.**	**PART**	**POS.**		**Fig. No.**	**REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER**	**ADJUSTMENT CONDITION**
1	1	Cassette Guide -L-	234(3)	L	DA2	*3(L-1)	
2	2	Wiper arm -L-	231(3)	L	DA2		
3	3	Opener lever	218(3)	L	DA2	*(L-2)	

List of Abbreviations:
L = Left; 3(L-1) = Locking Clip (L-1)

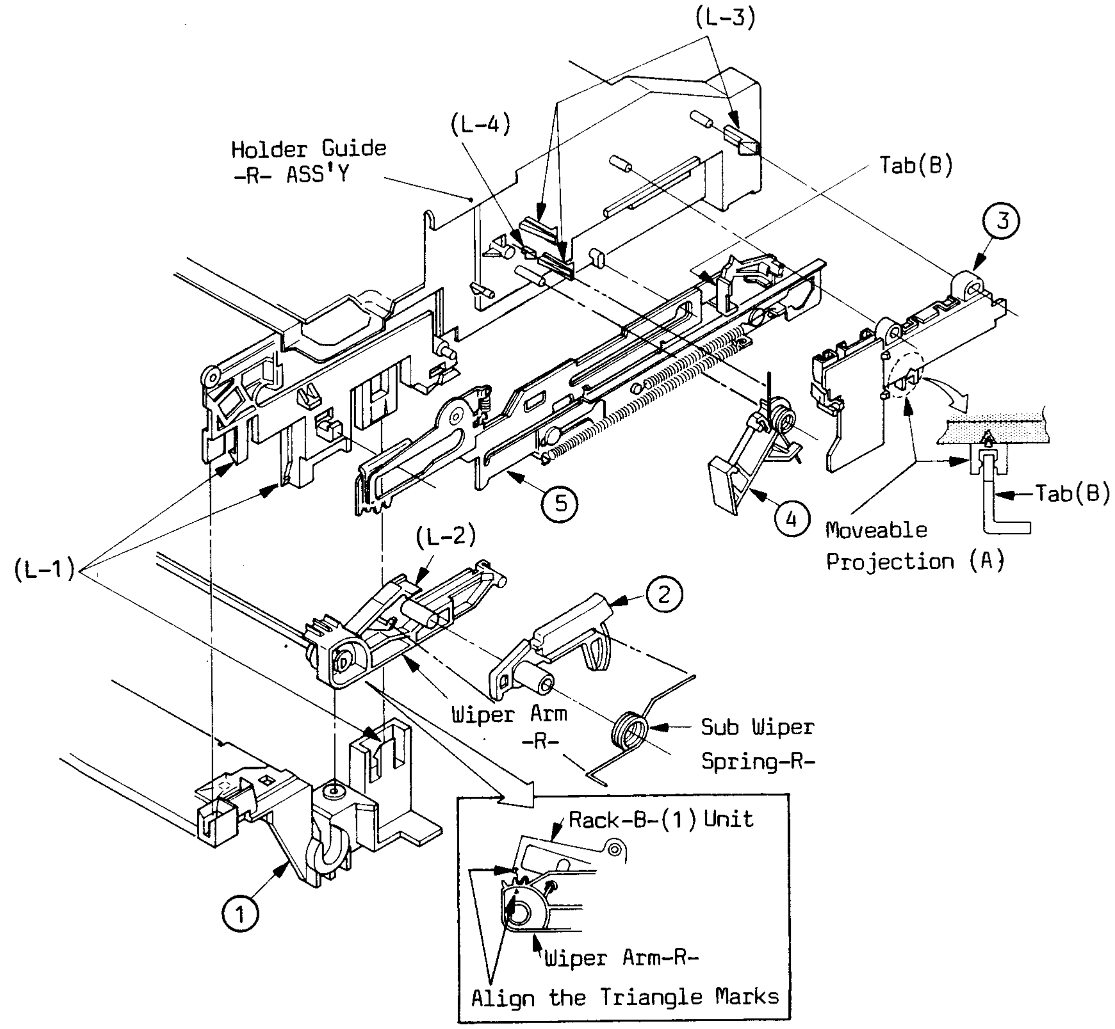

(L-3)
(L-4)
Holder Guide
-R- ASS'Y
Tab(B)
③
⑤
④
Moveable
Projection (A)
Tab(B)
(L-1)
(L-2)
②
Wiper Arm
-R-
Sub Wiper
Spring-R-
①
Rack-B-(1) Unit
Wiper Arm-R-
Align the Triangle Marks

Fig. DA1

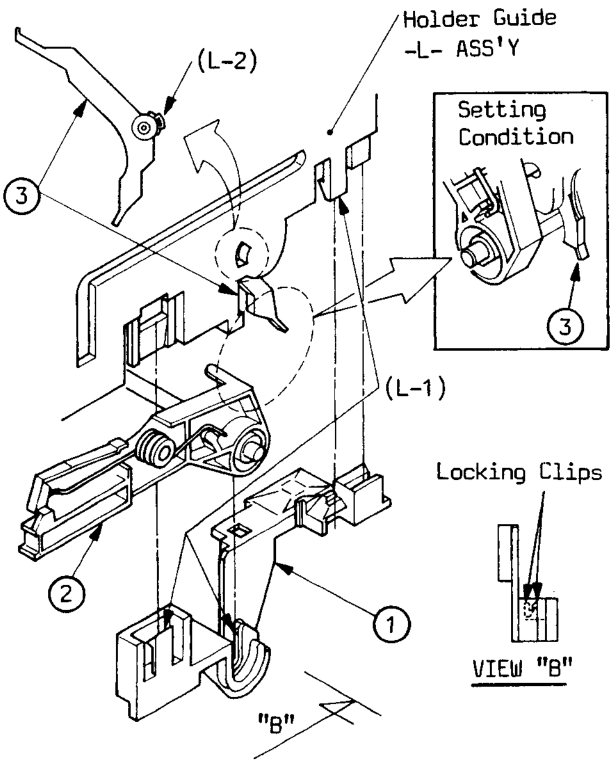

Holder Guide
-L- ASS'Y
(L-2)
③
Setting
Condition
③
(L-1)
Locking Clips
②
①
VIEW "B"
"B"

Fig. DA2

4 ASSEMBLY AND ADJUSTMENT PROCEDURES OF MECHANISM

The G-tape deck is mostly engaged to the system control circuit, through the mode select switch, pos. no. 55(1).
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are not aligned properly, the unit will be unloaded or stopped.
It may result in damage mechanical or electrical parts.
The detail of mechanical condition will be described later.

Note:
The phase relevant gears have been provided with holes or a protection mark. For a proper alignment of the gears refer to Fig. 4-1 (bottom view) and Fig. 4-2 (top view).
This mechanical adjustment is performed in the STOP mode, while the numerically sequence shows the asembly procedure.

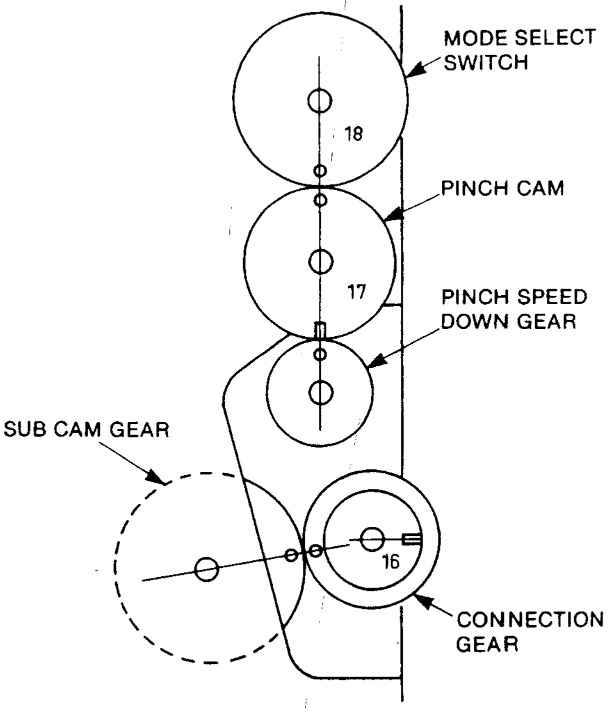

MODE SELECT SWITCH
18
PINCH CAM
17
PINCH SPEED DOWN GEAR
SUB CAM GEAR
16
CONNECTION GEAR

Fig. 4-1

44 460 B11

Bottom view of overall mechanical condition

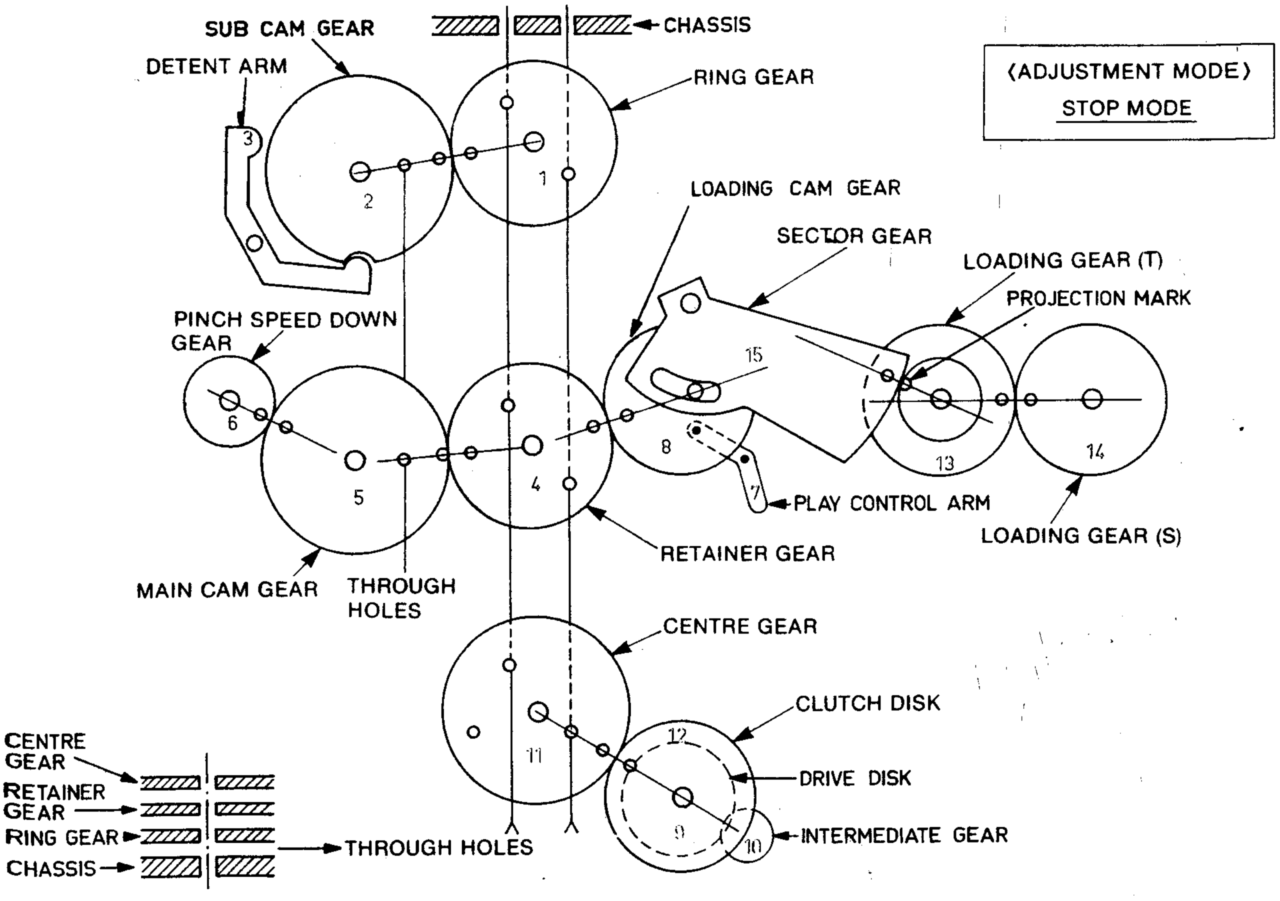

SUB CAM GEAR
CHASSIS
DETENT ARM
RING GEAR
(ADJUSTMENT MODE)
STOP MODE
3
2
1
LOADING CAM GEAR
SECTOR GEAR
LOADING GEAR (T)
PROJECTION MARK
PINCH SPEED DOWN GEAR
15
6
5
4
8
13
14
7
PLAY CONTROL ARM
LOADING GEAR (S)
RETAINER GEAR
MAIN CAM GEAR
THROUGH HOLES
CENTRE GEAR
CLUTCH DISK
11
12
DRIVE DISK
9
10
INTERMEDIATE GEAR
CENTRE GEAR
RETAINER GEAR
RING GEAR
CHASSIS
THROUGH HOLES

Fig. 4-2

44 459 C

Top view of overall mechanical condition

4.1 Assembly procedures of sub cam gear, ring gear and detent arm

- Install ring gear pos. no. 120(2) so that the hole on ring gear is exactly in line with the hole of chassis as shown in Fig. 4-3.
- Install sub cam gear pos. no. 112(2) so that the hole on sub cam gear is exactly in line with the hole on chassis, at the same time, the small hole (located just outside of large hole) on sub cam gear is exactly in line with the hole on ring gear.
- Install detent arm, pos. no. 110(2).

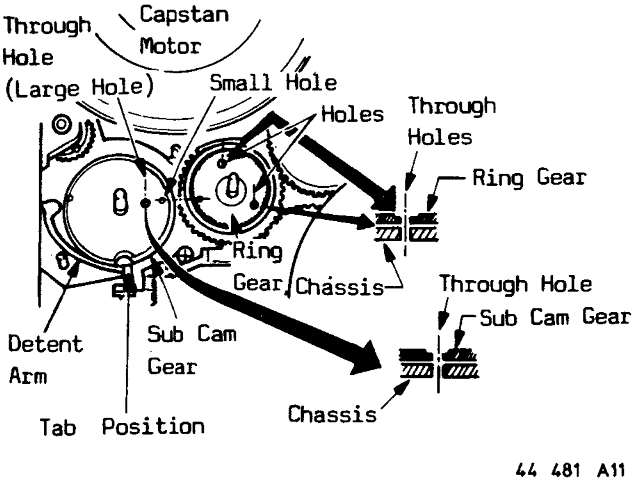

Through Hole (Large Hole)
Capstan Motor
Small Hole
Holes
Through Holes
Ring Gear
Ring Gear
Chassis
Through Hole
Sub Cam Gear
Detent Arm
Sub Cam Gear
Tab Position
Chassis
44 481 A11

Fig.4-3

4.2 Assembly procedures of main cam gear and pinch speed down gear

- Install pinch speed down gear pos. no. 64(1) from top side of chassis.
- Install main cam gear pos. no. 111(2) on to sub cam gear pos. no. 112(2) so that the small hole on main cam gear is exactly in line with the small hole of pinch speed down gear.
  And the large hole on main cam gear is exactly in line with the large hole of sub cam gear and the hole on the chassis, as shown in Fig. 4-4.
  To facilitate aligning the three holes use a small hex wrench or a matal pin.

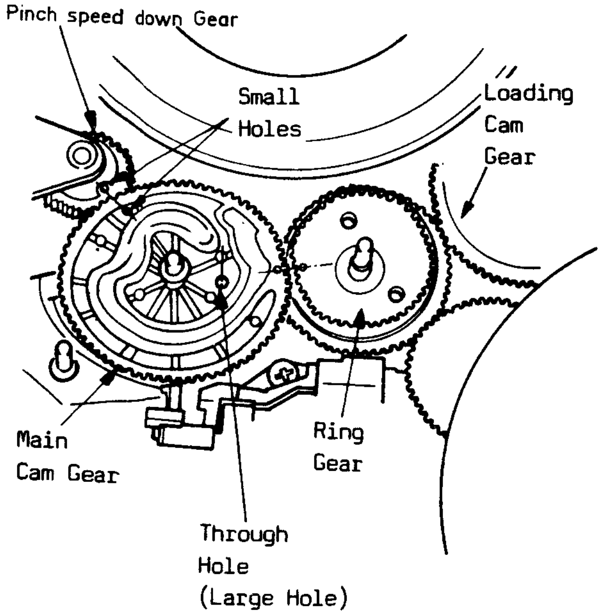

Pinch speed down Gear
Small Holes
Loading Cam Gear
Main Cam Gear
Ring Gear
Through Hole (Large Hole)
44 482 B11

Fig.4-4

4.3 Assembly procedures of loading cam gear and retainer gear

- Install loading cam gear pos. no. 142(2) so that the end of sub loading arm pos. no. 39(1) comes to rift A of loading cam gear as shown in Fig. 4-5.

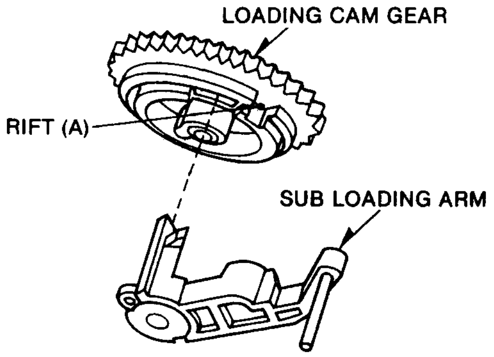

LOADING CAM GEAR
RIFT (A)
SUB LOADING ARM

Fig.4-5

- Install retainer gear pos. no. 114(2) on to the ring gear so that the hole of the retainer gear is exactly in line with the hole of main cam gear, at this time, this hole of retainer gear also is exactly in line with the hole of ring gear, and the hole on the chassis.
  Now, another hole of retainer gear is exactly in line with the hole of loading cam gear as shown in Fig. 4-6.
  To facilitate aligning the holes use a small hex wrench or a matal pin.

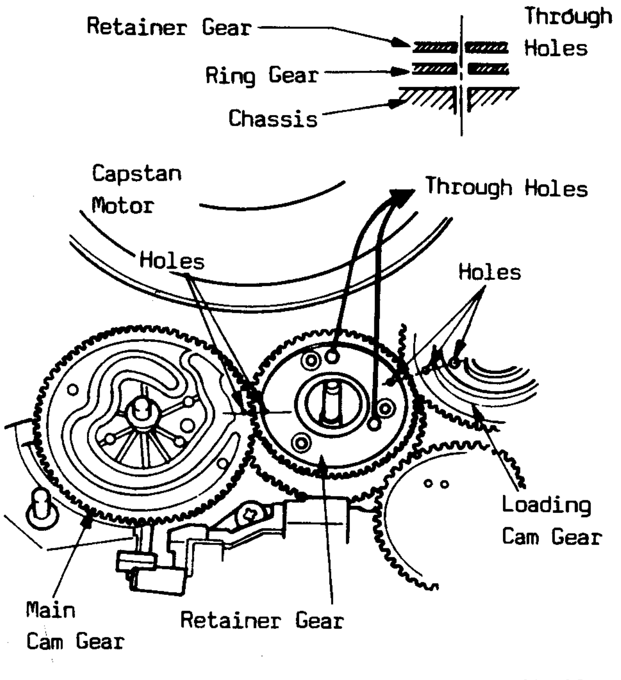

Retainer Gear
Ring Gear
Chassis
Through Holes
Capstan Motor
Through Holes
Holes
Holes
Loading Cam Gear
Main Cam Gear
Retainer Gear
44 483 B1

Fig.4-6

4.4 Assembly procedures of centre gear

- Install centre gear pos. no. 113(2) on to retainer gea pos. no. 114(2) so that the hole of centre gear is exactly in line with the hole of retainer gear, ring gea and the hole in the chassis, see Fig. 4-7. At this time another hole of the centre gear is exactly in line with the small hole of clutch disk pos. 116(2), see Fig. 4-1 then insert cut washer pos. no. 100(2).

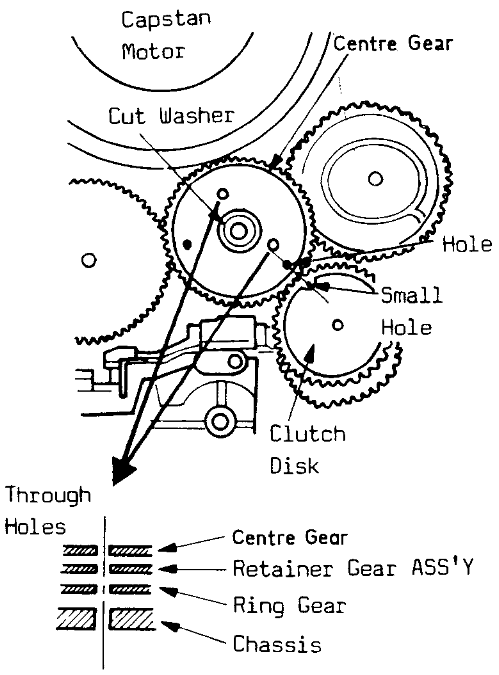

Capstan Motor
Centre Gear
Cut Washer
Hole
Small Hole
Clutch Disk
Through Holes
Centre Gear
Retainer Gear ASS'Y
Ring Gear
Chassis

Fig.4-7 44 484 B11

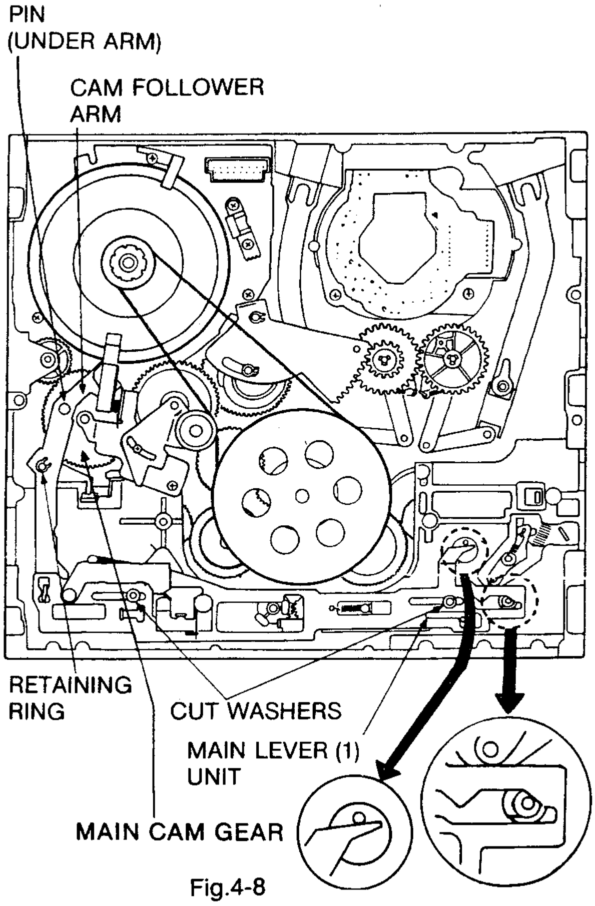

PIN (UNDER ARM)
CAM FOLLOWER ARM
RETAINING RING
CUT WASHERS
MAIN LEVER (1) UNIT
MAIN CAM GEAR

Fig.4-8

4.5 Assembly procedures of main lever (1) unit and cam follower arm unit

- Install cam follower arm unit pos. no. 109(2) so that the pin of cam follower arm insert to the groove of main cam gear then insert a retaining ring (5322 530 74076).
- Install main lever unit (1) pos. no. 103(2) unit and then insert cut washers pos. no. 100(2) as shown in Fig. 4-8.

4.6 Assembly procedures of loading gear (T), loading gear (S) sector gear and tension roller

- Set the P2 and P3 posts to unloading position, then install the loading gear (T) pos. no. 138(2) and (S) pos. no. 143(2) so that the hole of loading gear (T) is exactly in line with the hole of loading gear (S), see Fig. 4-9.
- Install sector gear pos. no. 141(2) so that the hole of sector gear is exactly in line with the projection mark on loading gear (T). Then insert the retaining rings.
- Install tension roller unit pos. no. 108(12) and SS brake unit pos. no's 105-107, then tighten the screws.

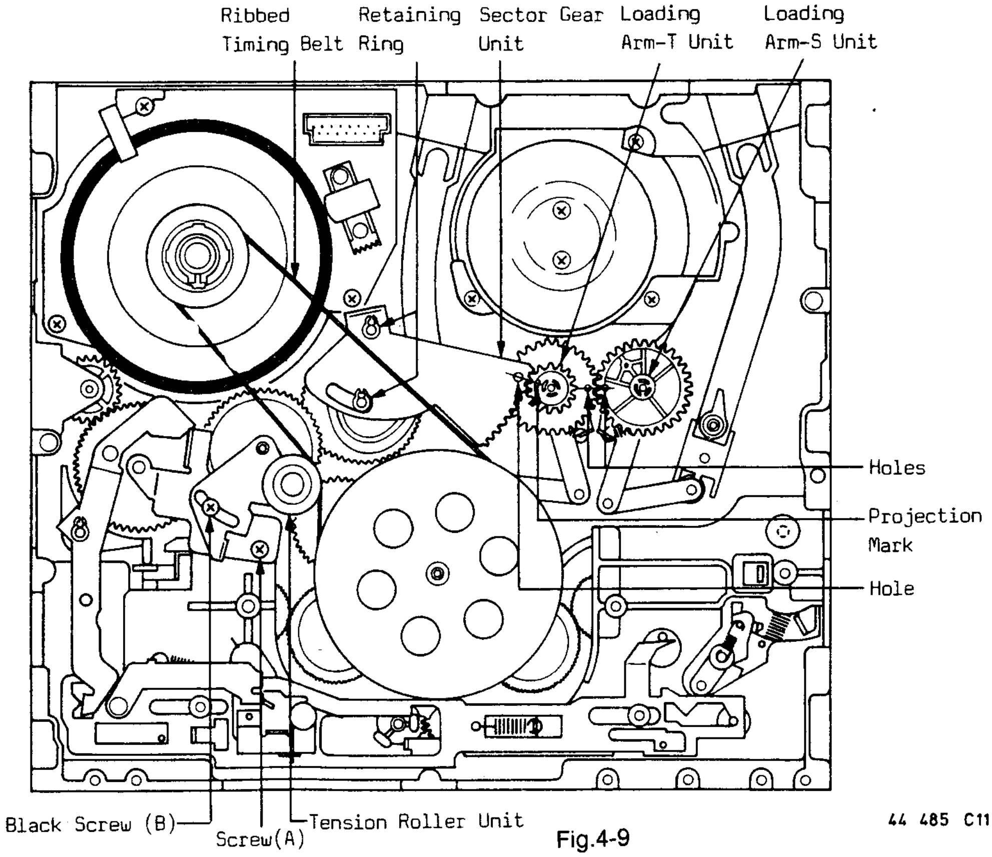

Ribbed Timing Belt
Retaining Ring
Sector Gear Unit
Loading Arm-T Unit
Loading Arm-S Unit
Holes
Projection Mark
Hole
Black Screw (B)
Screw(A)
Tension Roller Unit

Fig.4-9 44 485 C11

4.7 Assembly procedures of connection gear

Note:
Before this alignment, sub cam gear position (and positions of bottom side gears) must be in their correct alignment position for STOP mode as previously described.
Push down to seat the sector gear.
Install the connection gear pos. no. 65(1) so that the small hole of connection gear is exactly in line with the small hole of sub cam gear as shown in Fig. 4-10.

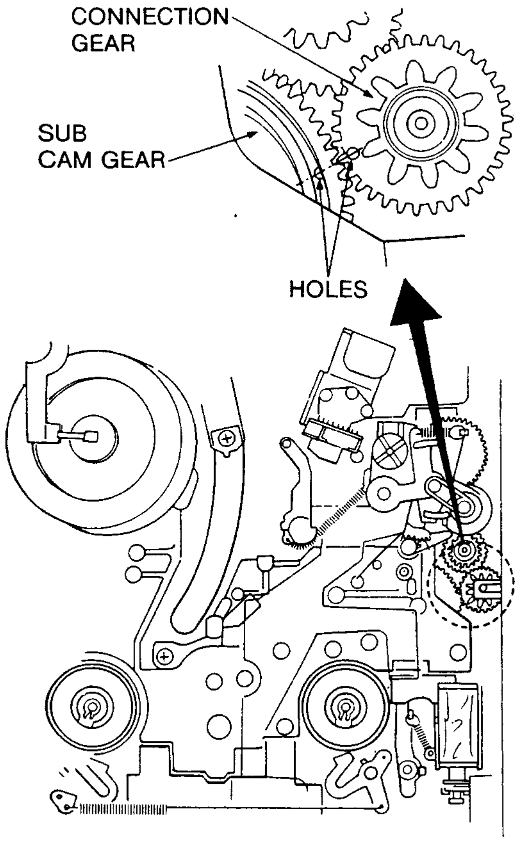

CONNECTION GEAR
SUB CAM GEAR
HOLES

Fig.4-10

4.8 Assembly procedures of mode select switch and P5 pull out sector gear

- Install mode select switch pos. no. 55(1) and tighten the screw, then solder the 5 solder portions.
- Install the P5 pull out sector gear so that the hole of the P5 pull out sector gear aligns with the cog of edge at P5 gear as shown in Fig. 4-11.

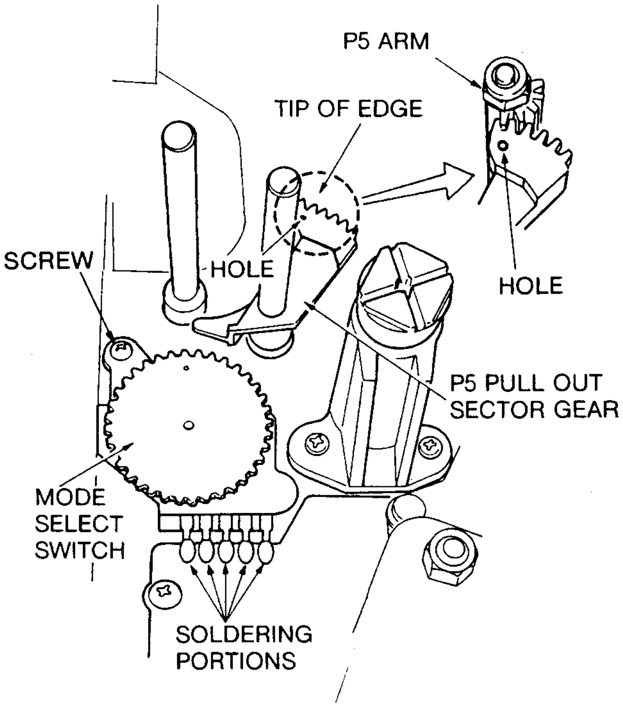

P5 ARM
TIP OF EDGE
SCREW
HOLE
HOLE
P5 PULL OUT SECTOR GEAR
MODE SELECT SWITCH
SOLDERING PORTIONS

Fig.4-11

4.9 Assembly procedures of pinch cam and pressure roller unit

- Push P5 arm unit clockwise until it stops and hold it in this position.
- install pinch cam pos. no. 51(1) so that the edge of P5 arm comes into the rift of pinch cam and the projection of pinch cam is exactly in line with the hole of pinch speed down gear, at this time, the hole of mode select switch pos. no. 55(1) is exactly in line with the hole of pinch cam as shown in Fig. 4-12.
- Install the pressure roller unit, then install the pinch cam cap.

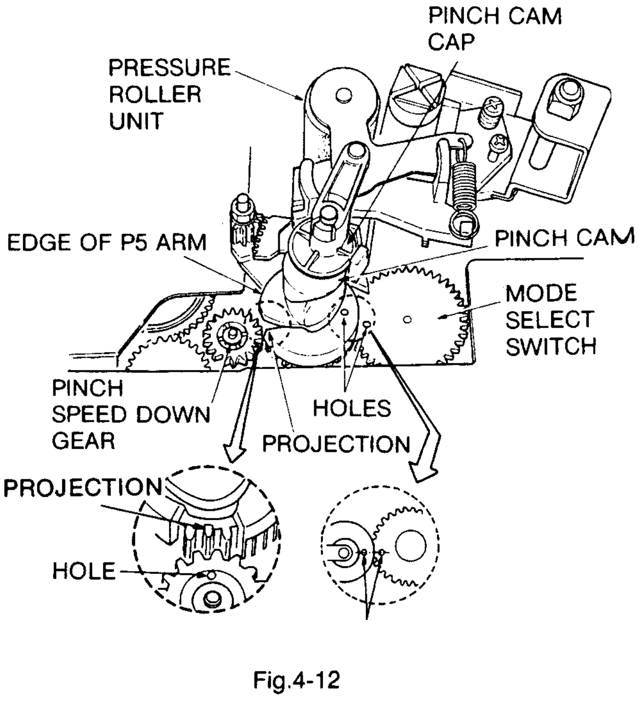

PINCH CAM CAP
PRESSURE ROLLER UNIT
EDGE OF P5 ARM
PINCH CAM
MODE SELECT SWITCH
PINCH SPEED DOWN GEAR
HOLES
PROJECTION
PROJECTION
HOLE

Fig.4-12

4.10 REINSTALLATION OF CASSETTE COMPARTMENT

When re-installing the cassette compartment, mechanical adjustment (alignment) should be performed for proper operation as follows.
And than, before reinstalling the cassette compartment ensure wiper arm (R) is aligned as shown in box, Fig. 4-13.

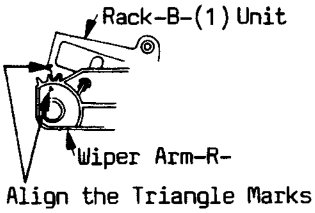

Rack-B-(1) Unit
Wiper Arm-R-
Align the Triangle Marks

Fig.4-13

A. Reinstalling the cassette compartment from EJECT position

1. Press the change lever pos. 122(2) to the direction indicated by arrow as shown in Fig. 4-14 (to release the lock).
2 Turn the capstan motor or centre pulley counter clockwise until the mechanism is placed fully into te EJECT position and maintain this position.

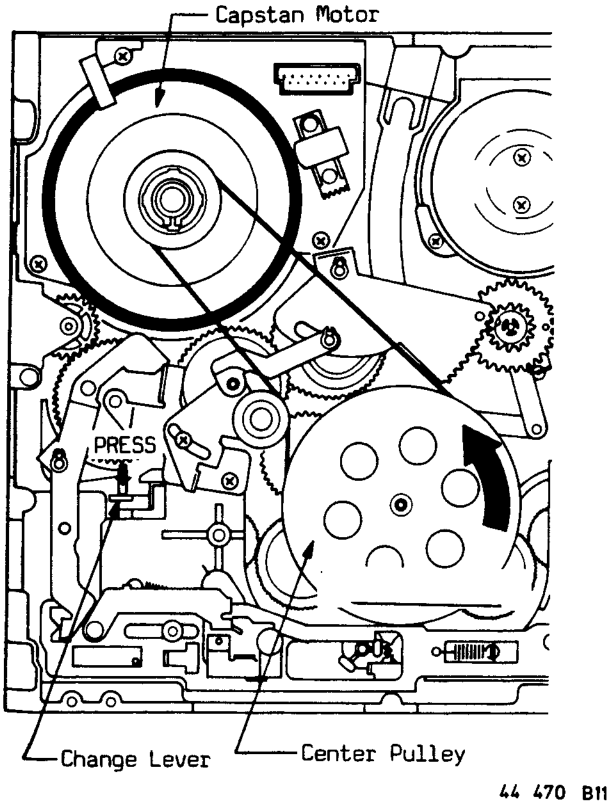

Capstan Motor
PRESS
Change Lever
Center Pulley
44 470 B11

Fig.4-14

3. Memorize the position of the marking or hole on the connection gear (located on top right side, as shown in Fig. 4-15). Turn the capstan motor clockwise while watching the connection gear so that marking or hole of the connection gear rotates one revolution.

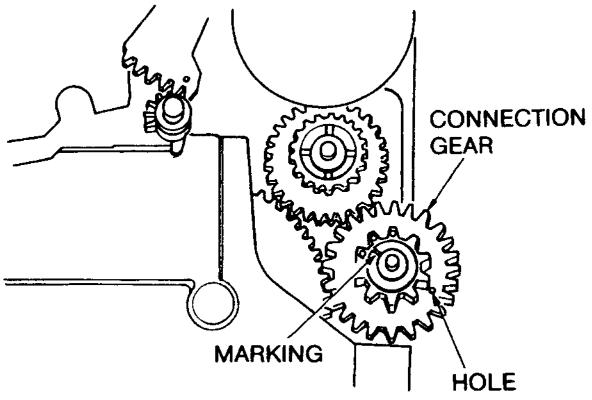
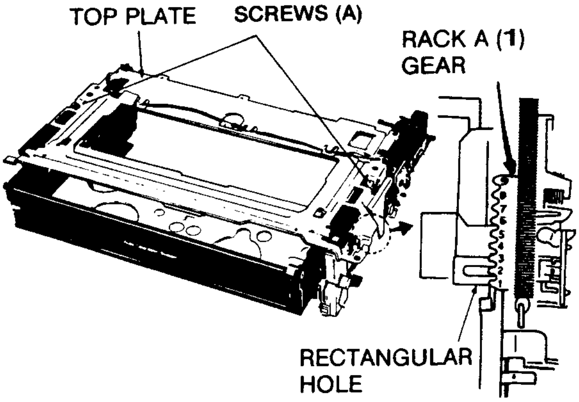

CONNECTION GEAR
MARKING
HOLE

Fig.4-15

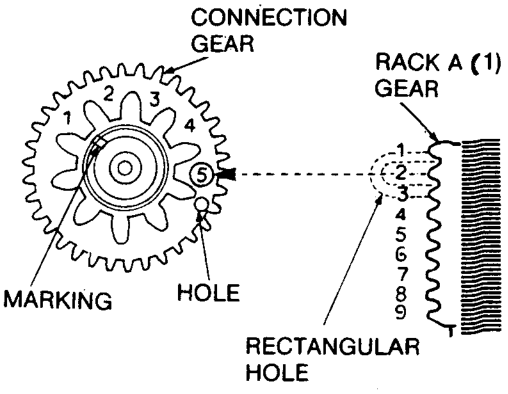
4. Slide the cassette holder (with wiper arm (R), see Fig. 4-20) just a little so that the second tooth of rack A (1) gear (located on the bottom side of cassette compartemt) comes to center of the rectangular hole as shown in Fig. 4-16

5. Remove the 2 screws (A) and carefully remove the top plate form the cassette compartment (so connection gear and rack A (1) gear can be seen when reinstalling). Fig. 4-16 shows the bottom view of the cassette compartment.

6. Slowly install the cassette compartment to chassis so that the second tooth of rack a (1) gear fits into the fifth slot of the conection gear as shown in Fig. 4-17. If it does not fit, slide the cassette holder a little bit to mesh the gear teeth.


TOP PLATE
SCREWS (A)
RACK A (1) GEAR
RECTANGULAR HOLE

Bottom view of cassette compartment
Fig. 4-16


CONNECTION GEAR
RACK A (1) GEAR
1
2
3
4
5
MARKING
HOLE
1
2
3
4
5
6
7
8
9
RECTANGULAR HOLE

Top view of cassette compartment

7. Reinstall the top plate and tighten the 2 screws (A), then tighten the 4 screws (B) and (C) as shown in Fig. 4-18
   Re-connect the flexible cable to P1508.

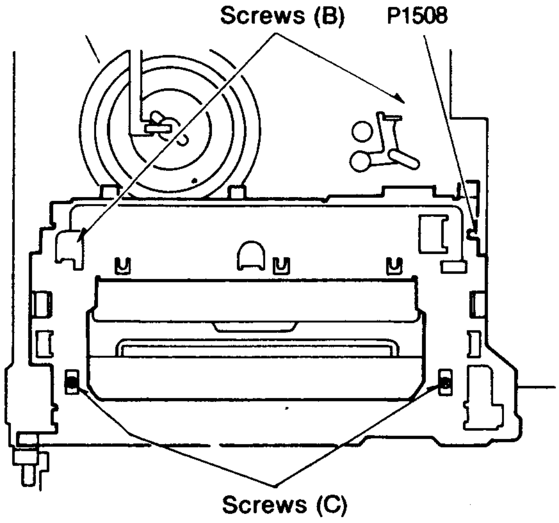


Fig. 4-18

Note:
If mechanism doesn't work correctly, carefully repeat above procedure of chapter 4.10 "Reinstallation of cassette compartment".

B. Reinstallation of cassette compartment from STOP (FF/REW) position

1. Set the mechanism into STOP (FF/REW) position by means of turning the capstan motor (refer to chapter 1.5).
2. Remove the 2 screws (A) as shown in Fig. 4-16.
3. Take the top plate out.
4. Take out the cassette holder unit as shown in Fig. 4-19.

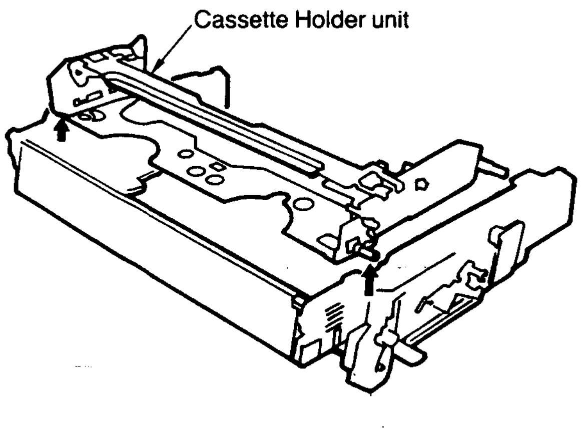


Fig. 4-19

5. Press the sub wiper arm (R) to direction indicated by the arrow as shown in Fig. 4-20 so that the sub wiper arm (R) comes to cassette down position completely and hold this position.

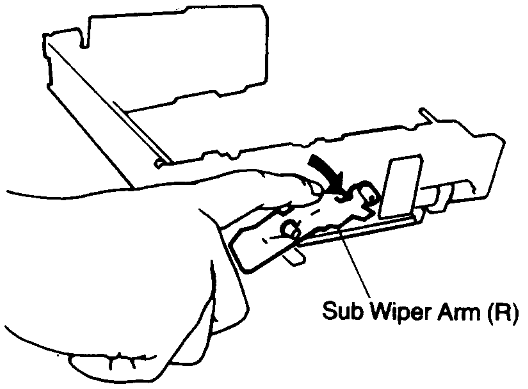


Fig. 4-20

6. Reinstall the cassette compartment (without cassette holder) to chassis so that the first tooth of rack gear A (1) aligns with the marking slot of the connection gear as shown in Fig. 4-21
7. Tighten the 4 screws (D) as shown in Fig. 4-22.
8. Press the change lever and turn the capstan motor counter clockwise until the mechanism is placed in the EJECT position as shown in Fig. 4-14.
9. Reinstall the cassette holder unit in the reverse order of item 4, Fig. 4-19.
10. Reinstall the top plate in the reverse order of item 3, Fig. 4-16.

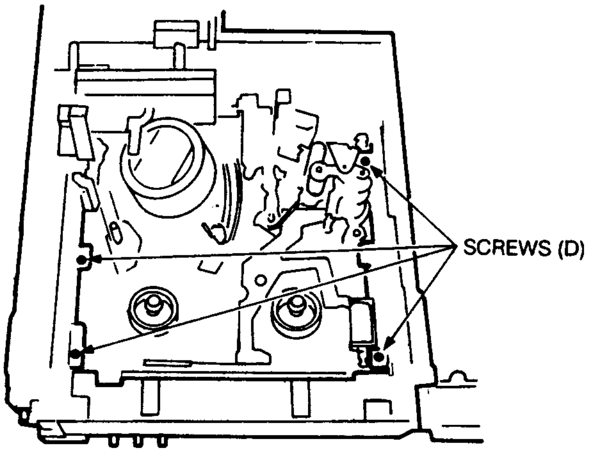


Fig. 4-22

Fig. 4-23 shows the right side of the cassette compartment, with alignments marks

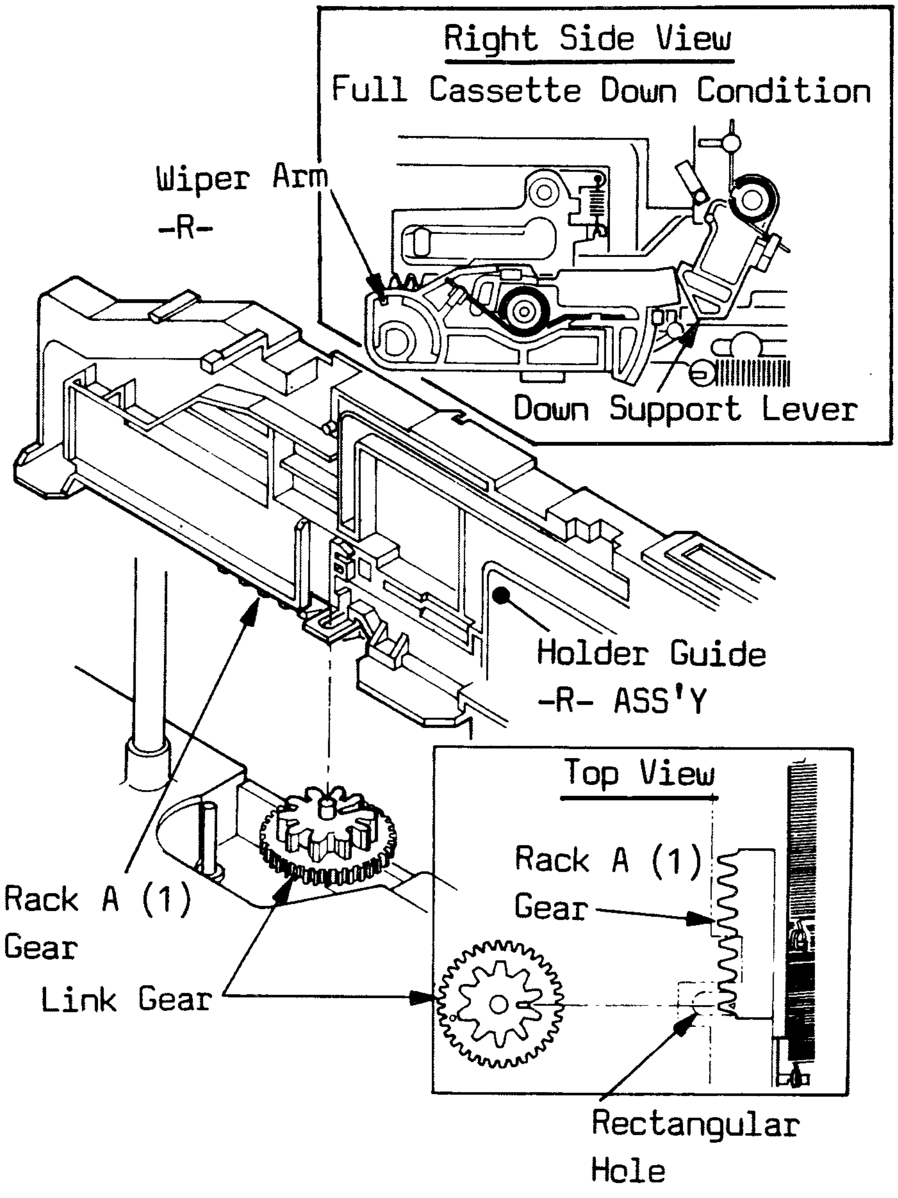
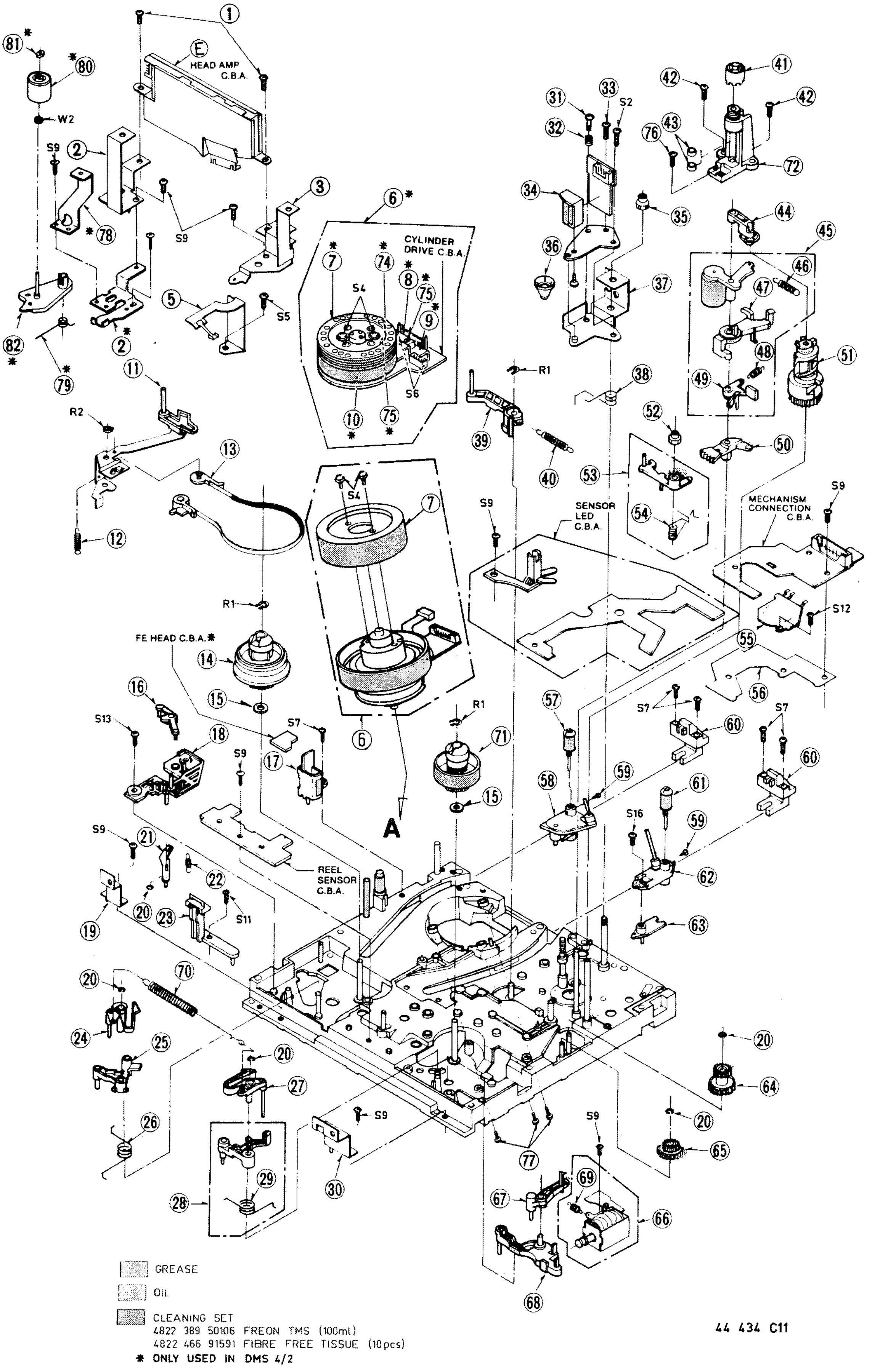

Right Side View
Full Cassette Down Condition
Wiper Arm
-R-
Down Support Lever
Holder Guide
-R- ASS'Y
Top View
Rack A (1)
Gear
Rack A (1)
Gear
Link Gear
Rectangular
Hole

Fig.4-21

5. EXPLODED VIEWS AND PARTSLIST

5.1 Exploded view 1 (top view)


HEAD AMP C.B.A.
E
CYLINDER DRIVE C.B.A.
SENSOR LED C.B.A.
MECHANISM CONNECTION C.B.A.
FE HEAD C.B.A. *
REEL SENSOR C.B.A.
A
W2
R1
R2
S2
S4
S5
S6
S7
S9
S11
S12
S13
S16
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(81)
(82)

▨ GREASE

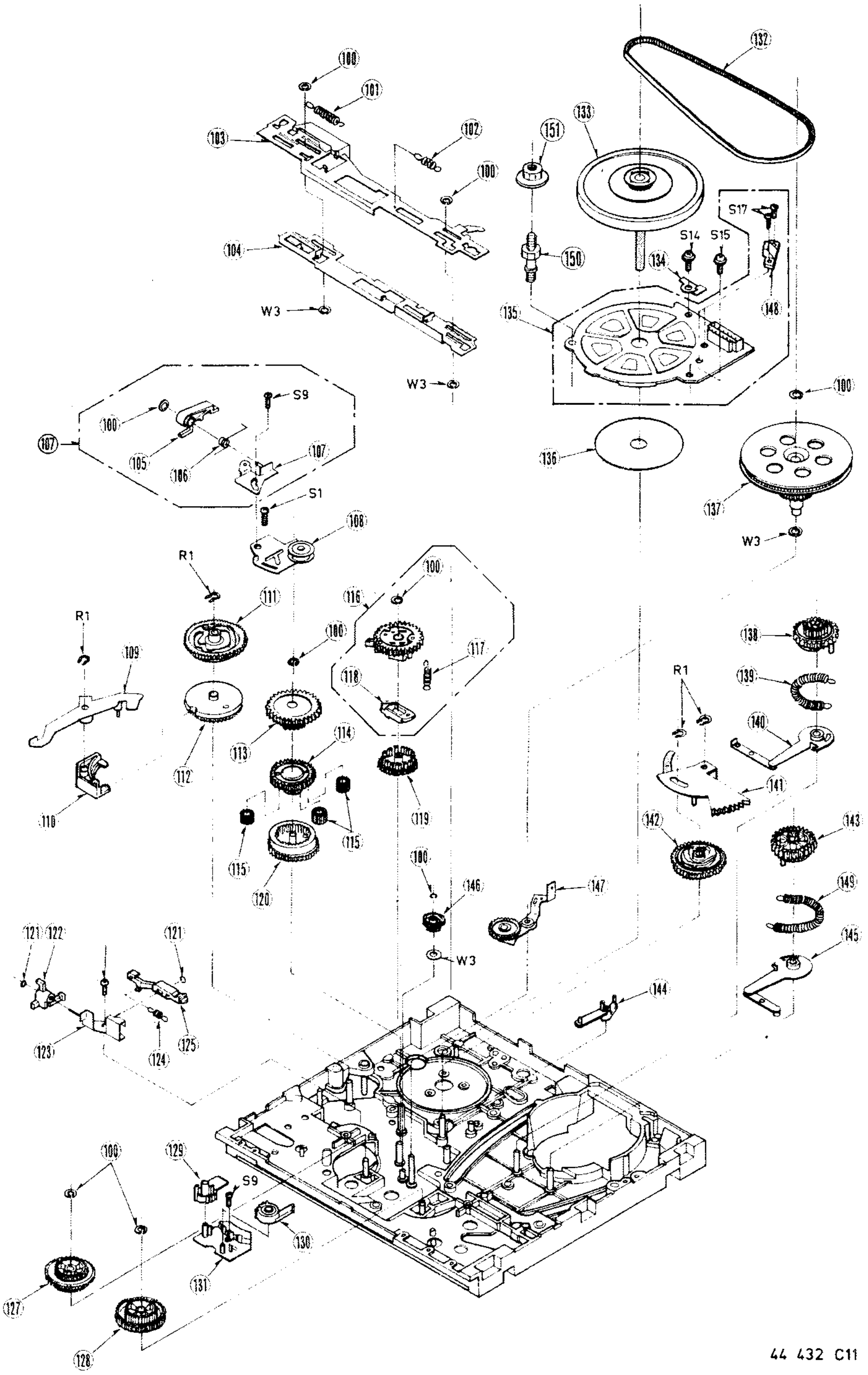
▨ OIL

▨ CLEANING SET
4822 389 50106 FREON TMS (100ml)
4822 466 91591 FIBRE FREE TISSUE (10pcs)

* ONLY USED IN DMS 4/2

44 434 C11

5.2 Exploded view 2 (bottom view)

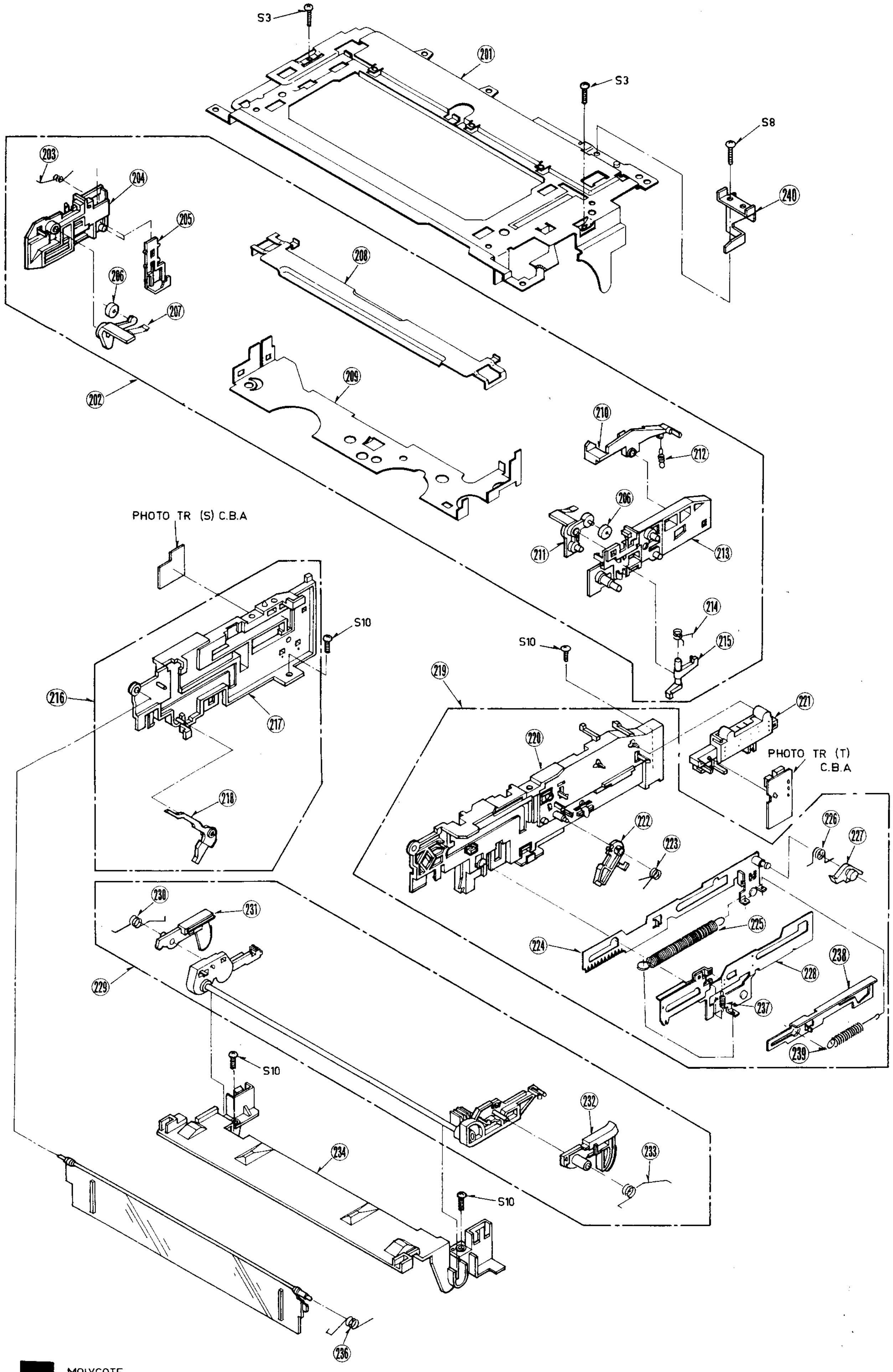

100
101
103
102
100
104
W3
W3
151
133
132
150
S17
S14
S15
134
148
135
100
136
137
W3
107
100
105
106
S9
107
S1
108
R1
111
R1
109
110
112
116
100
100
117
118
113
114
119
115
115
120
138
139
R1
140
141
142
143
149
145
100
146
147
W3
144
121
122
121
123
124
125
100
129
S9
130
131
127
128
44 432 C11

▨ GREASE

☐ OIL

▨ CLEANING SET
4822 389 50106 FREON TMS (100ml)
4822 466 91591 FIBRE TISSUE (10pcs)

5.3 Exploded view 3 (cassette-compartiment)


S3
201
S3
S8
240
203
204
205
208
206
207
202
209
210
212
206
211
213
PHOTO TR (S) C.B.A
S10
214
S10
215
216
217
219
221
220
PHOTO TR (T) C.B.A
218
222
223
226
227
230
231
225
224
228
238
229
237
239
S10
232
234
233
S10
236

■ MOLYCOTE

5.4 Partslist

1(1)	4822 502 13241	Screw
2(1)	4822 403 53564	Mount angle (L)
2(1)	4822 403 53724	Mount angle (L) (***)
3(1)	4822 403 53565	Mount angle (R)
5(1)	4822 466 82418	Earth plate
5(1)	4822 403 53727	Earth plate
6(1)	4822 691 20499	Scanning unit (*)
6(1)	4822 691 20508	Scanning unit (**)
6(1)	4822 691 20505	Scanning unit (***)
6(1)	4822 361 21264	Scanning unit (#)
6(1)	4822 361 21263	Scanning unit (##)
7(1)	4822 691 20501	Upper cylinder (*)
7(1)	4822 691 20509	Upper cylinder (**)
7(1)	4822 691 20506	Upper cylinder (***)
7(1)	4822 691 20527	Upper cylinder (#)
7(1)	4822 691 20528	Upper cylinder (##)
8(1)	4822 259 90132	Element (***)
9(1)	4822 403 53723	Main holder (***)
10(1)	4822 466 82419	Cover (***)
11(1)	4822 403 53614	Tension arm
12(1)	4822 492 32912	Tension spring
13(1)	4822 401 11201	Tension band
14(1)	4822 528 10717	Suppy reel
15(1)	4822 532 52057	Reel washer (0,2mm)
15(1)	4822 532 52058	Reel washer (0,3mm)
15(1)	4822 532 52055	Reel washer (0.5mm)
16(1)	4822 403 53615	Tension release arm
17(1)	4822 249 20076	FE head
18(1)	4822 403 53605	Tansion arm base
19(1)	4822 403 53562	Mount angle (L)
20(1)	4822 532 52054	Cut washer
21(1)	4822 403 53616	Release arm
22(1)	4822 492 32916	Release spring
23(1)	4822 271 30638	Safety switch
24(1)	4822 403 53622	Main brake unit (S)
25(1)	4822 403 53621	Soft brake unit (S)
26(1)	4822 492 42296	Spring
27(1)	4822 403 53623	Take up main brake (T)
28(1)	4822 403 53619	Take up soft brake (T)
29(1)	4822 492 42295	Spring
30(1)	4822 403 53563	Mount angle (R)
31(1)	4822 502 13168	Adjust screw
32(1)	4822 492 52043	Adjust spring
33(1)	4822 502 11834	Azimuth adjust screw
34(1)	4822 249 10373	A/C head
35(1)	4822 505 10945	Nut (nylon)
36(1)	4822 505 10944	Adjust nut
37(1)	4822 403 53601	Head base unit
38(1)	4822 492 42297	A/C head spring
39(1)	4822 403 53608	Sub loading arm
39(1)	4822 403 53842	Sub loading arm (#)(##)
40(1)	4822 492 32907	Sub post spring
41(1)	4822 502 13171	Thrust screw
42(1)	4822 502 13167	Housing screw
43(1)	4822 532 52053	Oil seal
44(1)	4822 403 53596	Pinch cam cap
45(1)	4822 528 81245	Pressure roller
46(1)	4822 492 32914	Pin pressure spring
47(1)	4822 403 53582	Pinch lift arm
48(1)	4822 492 32915	Release spring
49(1)	4822 403 53583	Pinch lift arm
50(1)	4822 522 32522	P5 sector gear
51(1)	4822 522 32525	Pinch cam
52(1)	4822 505 10737	Nut (nylon)
53(1)	4822 403 53609	P5 unit
54(1)	4822 492 70088	P5 spring
55(1)	4822 276 12496	Mode switch
56(1)	4822 403 53597	Shield plate
56(1)		not for (#)(##)!!
57(1)	4822 528 90699	Roller post unit
58(1)	4822 256 91349	Inclind base (S)
59(1)	4822 502 11831	Roller post screw
60(1)	4822 403 53571	post stopper
61(1)	4822 528 90698	Roller post unit
62(1)	4822 403 53602	Inclind base (T)
63(1)	4822 466 82389	Adjust plate
64(1)	4822 522 32529	Pinch speed down gear
65(1)	4822 522 32512	Connection gearrad
66(1)	4822 526 20151	Solenoid unit
67(1)	4822 403 53603	Kick rod unit
68(1)	4822 403 53569	Solenoid lever
69(1)	4822 492 32908	Kick rod spring
70(1)	4822 492 32913	Main brake spring
71(1)	4822 528 10718	Take up reel table
72(1)	4822 691 20483	Housing unit
74(1)	4822 255 40929	Cooling block (***)
75(1)	4822 502 13242	Screw (***)
76(1)	4822 502 13169	Screw
77(1)	4822 502 13243	Screw (***)
78(1)	4822 403 53725	Mount angle(***)
79(1)	4822 492 42324	Spring (***)
80(1)	4822 528 70578	Impedance rolle (***)
81(1)	4822 530 70449	Stopper (***)
82(1)	4822 403 53728	Impedance roller arm (***)
83(1)	4822 492 70087	Spring (***)
100(2)	4822 532 52054	Cut washer
101(2)	4822 492 32917	Release spring
102(2)	4822 492 70085	Lever spring
103(2)	4822 403 53604	Main lever
104(2)	4822 403 53594	Sub lever
105(2)	4822 403 53617	SS brake unit (*,**,***)
106(2)	4822 492 42303	SS brake spring (*,**,***)
107(2)	4822 403 53598	SS brake base (*,**,***)
107(2)	4822 403 53843	SS brake base(#)(##)
108(2)	4822 528 90697	Tension roller
109(2)	4822 403 53618	Cam follower arm
110(2)	4822 403 53581	Detent arm
111(2)	4822 522 32518	Main cam gear
112(2)	4822 522 32516	Sub cam gear
113(2)	4822 522 32519	Centre gear
114(2)	4822 522 32526	Retainer gear
115(2)	4822 522 32517	Planet gear
116(2)	4822 522 32521	Clutch disk (*,**,**)
116(2)	4822 522 32792	Clutch disk (#)(##)
117(2)	4822 492 32911	Clutch spring (*,*,***)
118(2)	4822 403 53561	Lock slide gear (*,**,***)
119(2)	4822 522 32513	Drive disk
120(2)	4822 522 32515	Ring gear
121(2)	4822 532 52052	Cut washer
122(2)	4822 403 53578	Change lever
123(2)	4822 403 53599	Release lever
124(2)	4822 492 32909	Release spring
125(2)	4822 403 53579	Release lever
127(2)	4822 522 32532	Take up real gear (T)
128(2)	4822 522 32527	Supply up real gear (S)
129(2)	4822 403 53577	Return lever (R)
130(2)	4822 403 53576	Return lever (L)
131(2)	4822 403 53572	Stopper base
132(2)	4822 358 30881	Timing belt
133(2)	4822 691 20484	Rotor unit
134(2)	4822 403 53568	Rotor stopper
135(2)	4822 691 20482	Stator unit
136(2)	4822 466 92285	Sub plate
137(2)	4822 528 81246	Centre pulley
138(2)	4822 522 32524	Loading gear (T)
139(2)	4822 492 32923	Loading spring

140(2)	4822 403 53612	Loading arm (T)
141(2)	4822 522 32531	Sector gear
142(2)	4822 522 32528	Loading cam gear
143(2)	4822 522 32523	Loading gear (S)
144(2)	4822 403 53575	Play control arm
145(2)	4822 403 53611	Loading arm (S)
146(2)	4822 522 32514	Intermediate gear
147(2)	4822 403 53613	Play–arm (*,**,***)
147(2)	4822 403 53841	Play–arm (#)(##)
148(2)	4822 249 20075	FG head
149(2)	4822 492 32918	Loading spring
201(3)	4822 443 30737	Top plate
202(3)	4822 256 91348	Cassette holder (*,**,***)
202(3)	4822 256 91536	Cassette holder (#)(##)
203(3)	4822 492 42299	Mount lever spring (*,**,***)
204(3)	4822 403 53573	Holder guide (L) (*,**,***)
205(3)	4822 403 53595	Mount lever (*,**,***)
206(3)	4822 528 90696	Roller (*,**,***)
207(3)	4822 403 53589	Pressure lever (L) (*,**,***)
208(3)	4822 403 53567	Holder angle (*,**,***)
209(3)	4822 403 53566	Cassette holder (*,**,***)
210(3)	4822 403 53588	Opener lever (*,**,***)
211(3)	4822 403 53591	Pressure lever (R) (*,**,***)
212(3)	4822 492 70086	Lever spring (*,**,***)
213(3)	4822 403 53574	Holder guide (R) (*,**,***)
214(3)	4822 492 42302	Release spring (*,**,***)
215(3)	4822 403 53587	Release lever (*,**,***)
216(3)	4822 443 40718	Side plate (L)
217(3)	4822 443 40716	Side plate (L)
218(3)	4822 403 53586	Opener lever
219(3)	4822 443 40719	Side plate (R) (*,**)
219(3)	4822 691 20507	Side plate (R) (***)
219(3)	4822 443 40817	Side plate (#)(##)
220(3)	4822 443 40717	Side plate (R) (*,**,***)
221(3)	4822 277 21257	Slide switch
222(3)	4822 403 53593	Down support lever (*,**,***)
223(3)	4822 492 42301	Down support spring (*,**,***)
224(3)	4822 403 53607	Rack (A) (*,**,***)
225(3)	4822 492 32919	Clutch spring (*,**,***)
226(3)	4822 492 42304	Lock spring (*,**,***)
227(3)	4822 403 53592	Lock lever(*,**,***)
228(3)	4822 403 53606	Rack (B) (*,**,***)
229(3)	4822 535 92528	Main shaft
230(3)	4822 492 42298	Wiper spring (L)
231(3)	4822 403 53584	Wiper arm (L)
232(3)	4822 403 53585	Wiper arm (R)
233(3)	4822 492 42306	Wiper spring
234(3)	4822 403 53626	Cassette guide
235(3)	4822 443 62697	Cassette cover(***)
236(3)	4822 492 42305	Blinder spring
237(3)	4822 492 32922	Rack (C) spring (*,**,***)
238(3)	4822 403 53628	Connection rod (*,**,***)
239(3)	4822 492 32921	Rod spring (*,**,***)
240(3)	4822 403 53627	Cassette holder angle

Fixing material

Screws

S(1)	4822 502 13217
S(2)	4822 502 11283
S(3)	4822 502 30531
S(4)	4822 502 30552
S(5)	4822 502 30553
S(6)	4822 502 30551
S(7)	4822 502 30556
S(8)	4822 502 30557
S(9)	4822 502 11968
S(10)	4822 502 30559
S(11)	4822 502 30558
S(12)	4822 502 30554
S(13)	4822 502 30555
S(14)	4822 502 30562
S(15)	4822 502 30561
S(16)	4822 502 13219
S(17)	4822 502 13218

Retaining rings

R(1)	5322 530 74076
R(2)	4822 530 70122

Washers

W(1)	4822 532 11703
W(2)	4822 532 11704
W(3)	4822 532 11705

Circuit board assemblies (C.B.As)

Mechanism connection C.B.A.	4822 214 32534 (*,**)(#,##)
Mechanism connection C.B.A.	4822 214 52531 (***)
Sensor LED C.B.A.	4822 214 32536
Sensor LED C.B.A.	4822 214 32532 NOT for (***)
Tacho circuit board	4822 214 32535 (***)
Tacho circuit board	4822 214 32543 NOT for (***)
Tacho circuit board	4822 214 32541 (***)
Erasehead circuit board	4822 214 32508 (***)
Control circuit head servo	4822 214 32509 (***)

* only for DM 4/0
** only for DM 4/2
*** only for DMS 4/2

# only for DMP 4/0
## only for DMP 4/2